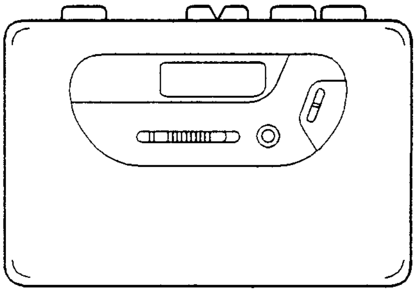
aiwa

AIWA-02111

# HS-JX629
# HS-J303MK3



STEREO RADIO
CASSETTE RECORDER

- BASIC TAPE MECHANISM : 2ZM-2R1
- TYPE. AH

# [SUPPLEMENT SERVICE MANUAL]

♠This service manual contains service information for only altered sections of Model HS-JX629,J303MK3 if requiring other service information, see the service manual of Model HS-JX619.

+ /1060

## SPECIFICATIONS

**Frequency range:**
FM: 87.5/87.5-108.1/108MHz (200/50kHz STEP)
AM: 530/531-1,710/1,602kHz (10/9kHz STEP)
**Maximum output:**
10mW+10mW (EIAJ/32Ω)
12mW+12mW (EIAJ/16Ω )
**Power source:**
Battery DC 2V, rechargeable battery (PB-4)
Battery DC 3V, R-03, LR-03(AAA) x 2
Domestic AC power (using the supplied AC adaptor)
**Battery life:**
Using rechargeable battery (PB-4)
Approx. 2 hours (EIAJ, REC/1 hour recharging)
Approx. 1.5 hours (EIAJ, PB 1mW/10 minutes recharging)
Approx. 3.5 hours (EIAJ, PB 1mW/1 hour recharging)
Using alkaline batteries (LR-03, AAA) x 2
Approx. 3 hours (EIAJ, REC)
Approx. 6.5 hours (EIAJ, PB 1mW)
**Dimensions:**
109.4 (W) x 78.5 (H) x 31.0 (D) mm
(4⅜ x 3⅛ x 1¼ in.)
**Weight:**
Approx. 220g (0.48 lb) incl. rechargeable battery

**<AC adaptor/AC-207>**
**Rated voltage:**
AC-207H AC 115V/230V, switchable
**Rated output:**
DC 2V 350mA

- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "DOLBY" and the double-D symbol ▯▯ are trademarks of Dolby Laboratories Licensing Corporation.

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S/M Code No. 09-938-033-401

SERVICE MANUAL

# ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO. | カンリ NO. | DESCRIPTION |
|---|---|---|---|
| IC | | | |
| | 87-001-894-080 | | IC, TA8155FN |
| | 87-001-875-080 | | IC, BA1106FS |
| | 87-020-234-080 | | IC, TA7688F |
| | 87-002-406-080 | | IC, TPIC326ADB |
| | 87-001-149-080 | | IC, TA8158F |
| | 87-001-971-080 | | IC, TA8132AF |
| | 87-001-145-080 | | IC, TA8126F |
| | 87-001-151-080 | | IC, TD6134F1 |
| | 87-002-334-010 | | IC, TC9308-030 |
| | 87-017-360-080 | | IC, SC7S04F(E5) |
| TRANSISTOR | | | |
| | 87-026-467-080 | | C-TR, HN1C01F(C1) |
| | 89-342-132-080 | | C-TR, 2SC4213B(AB) |
| | 89-341-165-080 | | C-TR, 2SC4116GR(LG) |
| | 87-026-475-080 | | C-TR, RN1607(XH) |
| | 87-026-470-080 | | C-TR, HN1C03F(B)(C3) |
| | 89-115-884-080 | | C-TR, 2SA1588Y(ZY) |
| | 89-113-625-080 | | C-TR, 2SA1362GR(AEG) |
| | 87-026-474-080 | | C-TR, RN1605(XE) |
| | 87-026-481-080 | | C-TR, RN4607(VH) |
| | 87-026-412-080 | | C-TR, RN1305(XE) |
| | 87-026-425-080 | | C-TR, RN2307(YH) |
| | 87-026-414-080 | | C-TR, RN1307(XH) |
| | 87-026-342-080 | | C-TR, DTC144EU(26) |
| | 89-342-153-080 | | C-TR, 2SC4215O(QO) |
| | 87-026-482-080 | | C-TR, RN4610(VK) |
| | 89-508-824-080 | | C-FET, 2SK882 Y(TY) |
| | 89-115-864-080 | | C-TR, 2SA1586Y(SY) |
| DIODE | | | |
| | 87-001-553-080 | | C-DIODE, 1SS322(A9) |
| | 87-001-167-080 | | C-DIODE, 1SS302(C3) |
| | 87-001-166-080 | | C-DIODE, 1SS301(B3) |
| | 87-001-221-080 | | C-DIODE, 1SS319(A4) |
| | 87-001-945-080 | | C-LED 1PR51 |
| MAIN C.B | | | |
| C1 | 87-016-057-080 | | C-CAP, TN 47-4 F95 |
| C2 | 87-010-746-080 | | C-CAP, TN 10-4 |
| C3 | 87-015-923-080 | | C-CAP, TN 0.22-35 |
| C4 | 87-015-923-080 | | C-CAP, TN 0.22-35 |
| C5 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C6 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C7 | 87-010-787-080 | | C-CAP, U 0.022-25B |
| C8 | 87-010-787-080 | | C-CAP, U 0.022-25B |
| C9 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C10 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C11 | 87-012-273-080 | | C-CAP, U 820P-50 B |
| C12 | 87-012-273-080 | | C-CAP, U 820P-50 B |
| C13 | 87-012-274-080 | | C-CAP, U 1000P-50 B |
| C14 | 87-012-274-080 | | C-CAP, U 1000P-50 B |
| C15 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C16 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C17 | 87-012-195-080 | | C-CAP, U 100P-50 CH |
| C18 | 87-012-195-080 | | C-CAP, U 100P-50 CH |
| C19 | 87-010-958-080 | | C-CAP, S 0.01-25 B J |
| C20 | 87-010-958-080 | | C-CAP, S 0.01-25 B J |
| C21 | 87-016-224-080 | | C-CAP, TN 22-2.5 |
| C22 | 87-016-224-080 | | C-CAP, TN 22-2.5 |
| C23 | 87-010-787-080 | | C-CAP, U 0.022-25B |
| C24 | 87-010-787-080 | | C-CAP, U 0.022-25B |
| C25 | 87-016-224-080 | | C-CAP, TN 22-2.5 |
| C26 | 87-012-278-080 | | C-CAP, U 2200P-50 B |
| C27 | 87-012-270-080 | | C-CAP, U 470P-50 B |
| C28 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C29 | 87-016-174-080 | | C-CAP, TN 4.7-4 F95Q |
| C30 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C31 | 87-012-279-080 | | C-CAP, U 2700P-50 B |
| C32 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C34 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C37 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C38 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C39 | 87-010-828-080 | | C-CAP, U 0.033-16 F |
| C40 | 87-010-828-080 | | C-CAP, U 0.033-16 F |
| C41 | 87-012-282-080 | | C-CAP, U 4700P-50 B |
| C42 | 87-012-282-080 | | C-CAP, U 4700P-50 B |
| C43 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C44 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C45 | 87-010-828-080 | | C-CAP, U 0.033-16 F |
| C46 | 87-010-828-080 | | C-CAP, U 0.033-16 F |
| C47 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C48 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C49 | 87-016-224-080 | | C-CAP, TN 22-2.5 |
| C51 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C52 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C77 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C78 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C79 | 87-010-178-080 | | C-CAP, S 1000P-50 B |
| C80 | 87-010-178-080 | | C-CAP, S 1000P-50 B |
| C81 | 87-010-787-080 | | C-CAP, U 0.022-25B |
| C82 | 87-010-787-080 | | C-CAP, U 0.022-25B |
| C83 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C84 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C85 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C86 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C87 | 87-016-057-080 | | C-CAP, TN 47-4 F95 |
| C88 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C89 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C91 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C92 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C99 | 87-012-274-080 | | C-CAP, U 1000P-50 B |
| C100 | 87-012-274-080 | | C-CAP, U 1000P-50 B |
| C101 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C102 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C103 | 87-010-824-010 | | CAP, E 220-2 (MJ) |
| C104 | 87-010-824-010 | | CAP, E 220-2 (MJ) |
| C105 | 87-016-224-080 | | C-CAP, TN 22-2.5 |
| C106 | 87-016-252-080 | | C-CAP, TN 15-4 F95 S |
| C107 | 87-016-057-080 | | C-CAP, TN 47-4 F95 |
| C108 | 87-010-853-080 | | C-CAP, 220-4V H5.5 |
| C109 | 87-016-057-080 | | C-CAP, TN 47-4 F95 |
| C110 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C111 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C120 | 87-010-853-080 | | C-CAP, 220-4V H5.5 |
| C121 | 87-016-174-080 | | C-CAP, TN 4.7-4 F95Q |
| C122 | 87-016-168-080 | | C-CAP, TN 0.47-25F95Q |
| C123 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C124 | 87-016-164-080 | | C-CAP, TN 0.1-35 F95Q |
| C125 | 87-010-504-080 | | C-CAP, TN 0.47-25 |
| C126 | 87-010-829-080 | | C-CAP, U 0.047-16F |
| C127 | 87-016-169-080 | | C-CAP, TN 0.68-20F95Q |
| C128 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C129 | 87-012-142-080 | | C-CAP, S 0.33-16 F |
| C130 | 87-012-142-080 | | C-CAP, S 0.33-16 F |
| C131 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C140 | 87-010-482-040 | | CAP, E 220-4 |
| C141 | 87-010-482-040 | | CAP, E 220-4 |
| J1 | 87-099-009-010 | | JACK 3.5 BLK(L) N |
| J2 | 87-099-009-010 | | JACK 3.5 BLK(L) N |
| J3 | 87-049-549-010 | | JACK, DC |
| L1 | 87-007-270-080 | | C-COIL, OSC BIAS |
| L2 | 87-003-234-080 | | C-COIL, S 0.22 UH |
| L3 | 87-003-240-080 | | C-COIL, S 3.3 UH |
| L4 | 87-003-240-080 | | C-COIL, S 3.3 UH |
| L5 | 87-003-240-080 | | C-COIL, S 3.3 UH |

| REF. NO | PART NO. | カンリ NO. | DESCRIPTION |
|---|---|---|---|
| R9 | 88-108-332-080 | | C-RES, U 3.3K-1/16W J |
| R10 | 87-022-292-080 | | C-RES, U 330K-1/16W F |
| R11 | 87-022-243-080 | | C-RES, U 15K-1/16W F |
| R12 | 87-022-243-080 | | C-RES, U 15K-1/16W F |
| R13 | 87-022-215-080 | | C-RES, U 1K-1/16W F |
| R14 | 87-022-215-080 | | C-RES, U 1K-1/16W F |
| R15 | 87-022-283-080 | | C-RES, U 820-1/16W F |
| R16 | 87-022-283-080 | | C-RES, U 820-1/16W F |
| R112 | 87-022-043-080 | | C-RES, M M/F 8.2K-1/8 |
| S1 | 87-036-244-080 | | C-SW, SLIDE 1-2-2(NC) |
| S2 | 87-036-244-080 | | C-SW, SLIDE 1-2-2(NC) |
| S3 | 87-036-123-080 | | C-SW, SLIDE 1-1-2 |
| S4 | 87-036-123-080 | | C-SW, SLIDE 1-1-2 |
| S5 | 82-ZM2-620-010 | | SW, LEAF BSW371 |
| S6 | 87-036-312-080 | | C-SW, PUSH 102MH4 |
| S7 | 87-036-237-080 | | C-SW, PUSH |
| S8 | 87-036-237-080 | | C-SW, PUSH |
| S9 | 87-036-123-080 | | C-SW, SLIDE 1-1-2 |
| SFR1 | 87-024-611-080 | | C-SFR, 4.7K EVM 3SS |
| TC1 | 82-HJ4-209-110 | | TERM, ASSY B-BOX |
| TM1 | 82-HJ4-209-010 | | HLDR, TERM-B |
| VR1 | 87-024-620-010 | | VR, 20KAX2 DIA14N |

TUNER C. B

| REF. NO | PART NO. | カンリ NO. | DESCRIPTION |
|---|---|---|---|
| BT201 | 81-HR2-611-010 | | BAT, CL1220-1F5 |
| C201 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C202 | 87-010-154-080 | | C-CAP, S 10P-50 CH |
| C203 | 87-012-195-080 | | C-CAP, U 100P-50 CH |
| C204 | 87-012-176-080 | | C-CAP, U 15P-50 CH |
| C205 | 87-012-195-080 | | C-CAP, U 100P-50 CH |
| C206 | 87-012-195-080 | | C-CAP, U 100P-50 CH |
| C207 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C208 | 87-012-274-080 | | C-CAP, U 1000P-50 B |
| C209 | 87-012-195-080 | | C-CAP, U 100P-50 CH |
| C210 | 87-012-168-080 | | C-CAP, U 6P-50 CH |
| C211 | 87-010-152-080 | | C-CAP, S 8P-50 CH |
| C212 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C213 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C214 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C215 | 87-012-273-080 | | C-CAP, U 820P-50 B |
| C216 | 87-010-787-080 | | C-CAP, U 0.022-25B |
| C217 | 87-010-787-080 | | C-CAP, U 0.022-25B |
| C218 | 87-012-193-080 | | C-CAP, U 82P-50 CH |
| C219 | 87-012-199-080 | | C-CAP, U 220P-50 CH |
| C220 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C221 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C222 | 87-010-830-080 | | C-CAP, U 0.068-16F |
| C223 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C224 | 87-012-280-080 | | C-CAP, U 3300P-50 B |
| C225 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C226 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C227 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C228 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C229 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C230 | 87-012-282-080 | | C-CAP, U 4700P-50 B |
| C231 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C232 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C233 | 87-012-286-080 | | C-CAP, U 0.01-25 B |
| C234 | 87-012-274-080 | | C-CAP, U 1000P-50 B |
| C235 | 87-010-831-080 | | C-CAP, U 0.1-16F |
| C236 | 87-010-872-080 | | C-CAP, U 470P-50 SL |
| C237 | 87-012-337-080 | | C-CAP, U 56P-50 CH |
| C238 | 87-012-252-080 | | C-CAP, U 30P-50UJ |
| C239 | 87-012-282-080 | | C-CAP, U 4700P-50 B |
| C240 | 87-010-787-080 | | C-CAP, U 0.022-25B |
| C241 | 87-010-829-080 | | C-CAP, U 0.047-16F |
| C242 | 87-012-282-080 | | C-CAP, U 4700P-50 B |
| C243 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C244 | 87-012-156-080 | | C-CAP, S 220P-50 CH |
| C245 | 87-012-195-080 | | C-CAP, U 100P-50 CH |
| C246 | 87-012-142-080 | | C-CAP, S 0.33-16 F |

| REF. NO | PART NO. | カンリ NO. | DESCRIPTION |
|---|---|---|---|
| C247 | 87-010-154-080 | | C-CAP, S 10P-50 CH |
| C248 | 87-012-276-080 | | C-CAP, U 1500P-50 B |
| C249 | 87-010-197-080 | | C-CAP, S 0.01-25 B |
| C250 | 87-010-197-080 | | C-CAP, S 0.01-25 B |
| C251 | 87-010-197-080 | | C-CAP, S 0.01-25 B |
| C252 | 87-010-197-080 | | C-CAP, S 0.01-25 B |
| C253 | 87-010-197-080 | | C-CAP, S 0.01-25 B |
| C254 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C255 | 87-010-196-080 | | C-CAP, S 0.1-25 F |
| C256 | 87-012-184-080 | | C-CAP, U 33P-50 CH |
| C257 | 87-012-169-080 | | C-CAP, U 7P-50 CH |
| C258 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C259 | 87-010-196-080 | | C-CAP, S 0.1-25 F |
| C260 | 87-010-196-080 | | C-CAP, S 0.1-25 F |
| C261 | 87-010-196-080 | | C-CAP, S 0.1-25 F |
| C262 | 87-010-197-080 | | C-CAP, S 0.01-25 B |
| C263 | 87-010-746-080 | | C-CAP, TN 10-4 |
| C264 | 87-010-482-040 | | CAP, E 220-4 |
| C265 | 87-010-424-080 | | C-CAP, TN 4.7-4 |
| C266 | 87-010-505-080 | | C-CAP, TN 1-16 |
| C267 | 87-010-746-080 | | C-CAP, TN 10-4 |
| C268 | 87-010-196-080 | | C-CAP, S 0.1-25 F |
| C269 | 87-010-805-080 | | C-CAP, S 1-16 F |
| C271 | 87-012-178-080 | | C-CAP, U 18P-50 CH |
| C272 | 87-012-199-080 | | C-CAP, U 220P-50 CH |
| CF201 | 87-008-406-080 | | BPF, GFMB1 |
| CF202 | 87-008-455-080 | | C-FILTER KIT 10.7, 2- |
| CF203 | 87-008-455-080 | | C-FILTER KIT 10.7, 2- |
| CF204 | 87-008-396-080 | | C-FILTER, CF, 450KHZ |
| CF205 | 87-008-455-080 | | C-FILTER KIT 10.7, 2- |
| CF206 | 87-008-397-010 | | FILTER, SAW, 456, F18 |
| CT201 | 87-011-189-080 | | C-TRIMER, CTZ-10A |
| L201 | 82-HJ4-610-010 | | COIL, FM OSC |
| L202 | 87-005-564-080 | | C-COIL, S 2.2UH K |
| L203 | 82-HJ4-611-010 | | COIL, FM RF |
| L204 | 87-008-420-080 | | C-IFT, 450K, MW |
| L205 | 80-HJ1-613-010 | | BAR, ANTENNA ASSY |
| L206 | 87-003-247-080 | | C-COIL, 100UH J |
| L208 | 87-006-173-080 | | C-COIL, DD, 5CDL |
| L209 | 87-003-243-080 | | C-COIL, S 10UH K |
| LCD201 | 82-HJ4-612-010 | | LCD, ASSY, 030 A |
| S201 | 87-036-123-080 | | C-SW, SLIDE 1-1-2 |
| S202 | 87-036-123-080 | | C-SW, SLIDE 1-1-2 |
| S204 | 87-030-152-080 | | C-SW, TACT SKHU260 |
| S205 | 87-030-152-080 | | C-SW, TACT SKHU260 |
| S209 | 87-036-123-080 | | C-SW, SLIDE 1-1-2 |
| VC201 | 87-026-359-080 | | C-VARICAP, KV1410(F1) |
| VC202 | 87-026-359-080 | | C-VARICAP, KV1410(F1) |
| VC203 | 87-026-435-080 | | C-VARICAP, KV1560(A6) |
| X201 | 87-030-180-010 | | X'TAL KF-38R5-8A |

TACT C. B

| REF. NO | PART NO. | カンリ NO. | DESCRIPTION |
|---|---|---|---|
| S203 | 87-036-220-080 | | C-SW, T |
| S206 | 87-036-220-080 | | C-SW, T |
| S207 | 87-036-220-080 | | C-SW, T |
| S208 | 87-036-220-080 | | C-SW, T |

HEAD FLEX. C. B

| REF. NO | PART NO. | カンリ NO. | DESCRIPTION |
|---|---|---|---|
| RPH | 82-HJ4-601-010 | | HEAD ASSY |

TUNER CONNECT FLEX. C. B

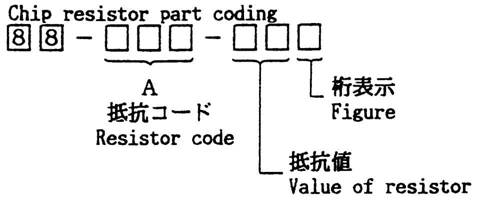
| REF. NO | PART NO. | カンリ NO. | DESCRIPTION |
|---|---|---|---|
| | 82-HJ4-605-010 | | PWB, FLEX TU |

MISCELLANEOUS

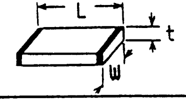
| REF. NO | PART NO. | カンリ NO. | DESCRIPTION |
|---|---|---|---|
| C113 | 84-439-620-080 | | CAP, E 470-4 |
| M1 | 09-001-258-010 | | MOTOR KIT ABL-10 |

## ○チップ抵抗部品コード／CHIP RESISTOR PART CODE

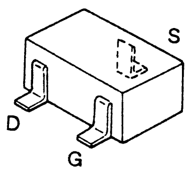
チップ抵抗部品コードの成り立ち
Chip resistor part coding



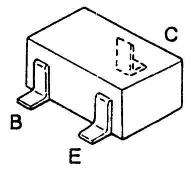
チップ抵抗
Chip resistor

| Wattage 容量 | Type 種類 | Tolerance 許容誤差 | Symbol 記号 | Dimensions／寸法(mm) | | | | Resistor Code : A<br>抵抗コード : A |
|---|---|---|---|---|---|---|---|---|
| | | | | Form/外形 | L | W | t | |
| 1/32W | 1608 | ±5% | CJ |  | 1.6 | 0.8 | 0.35 | 108 |
| 1/10W | 2125 | ±5% | CJ | | 2 | 1.25 | 1.45 | 118 |
| 1/8W | 3216 | ±5% | CJ | | 3.2 | 1.6 | 0.5<br>~0.7 | 128 |

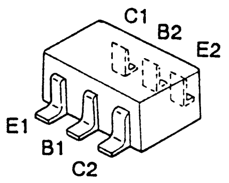
## TRANSISTOR ILLUSTRATION



2SK882



2SA1362
2SA1586
2SA1588
2SC4116
2SC4213
2SC4215
DTC144
RN1305
RN1307
RN2307



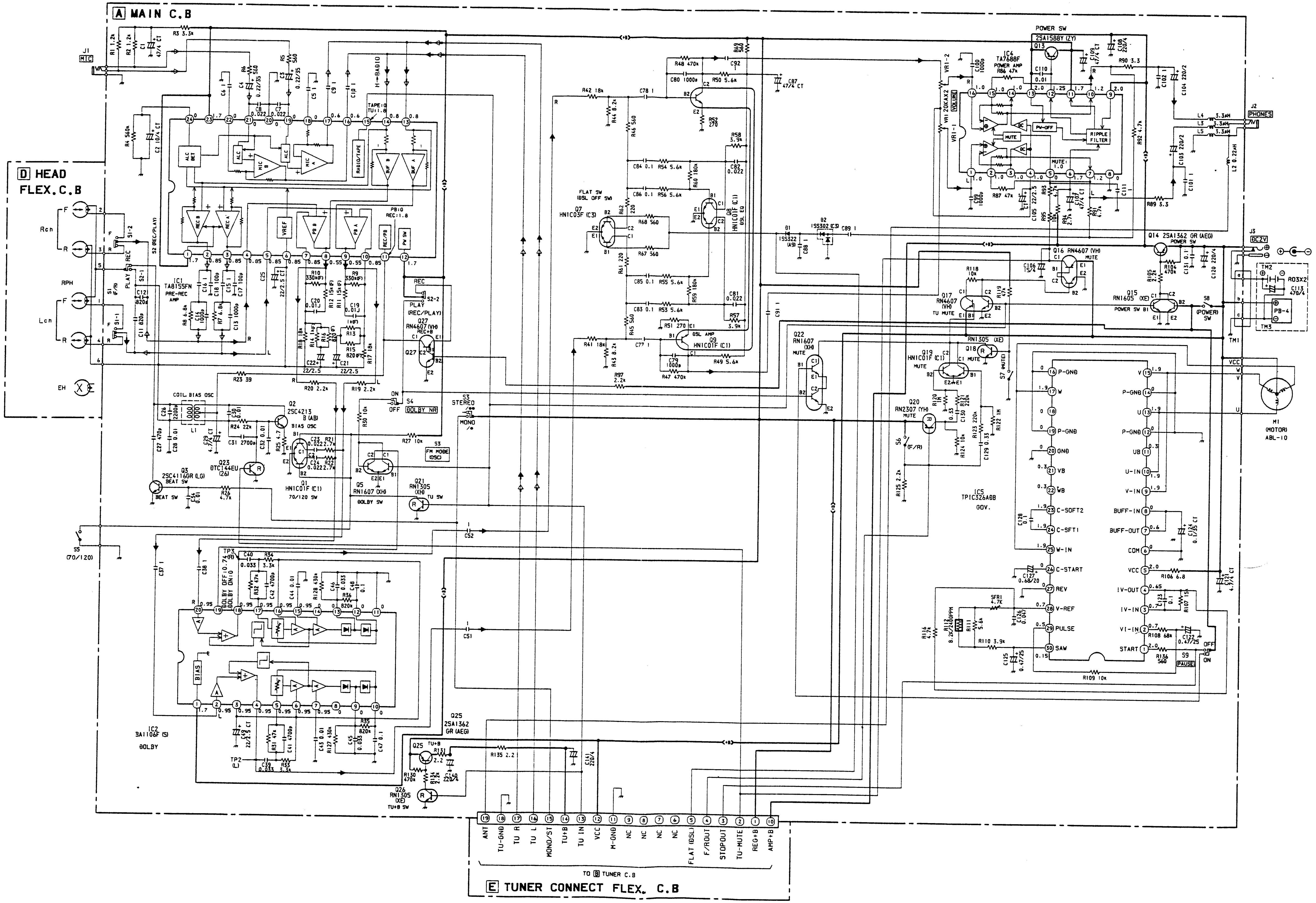
HN1C01
HN1C03
RN1605
RN1607
RN4607
RN4610

## ■ ACCESSORIES／PACKAGE LIST

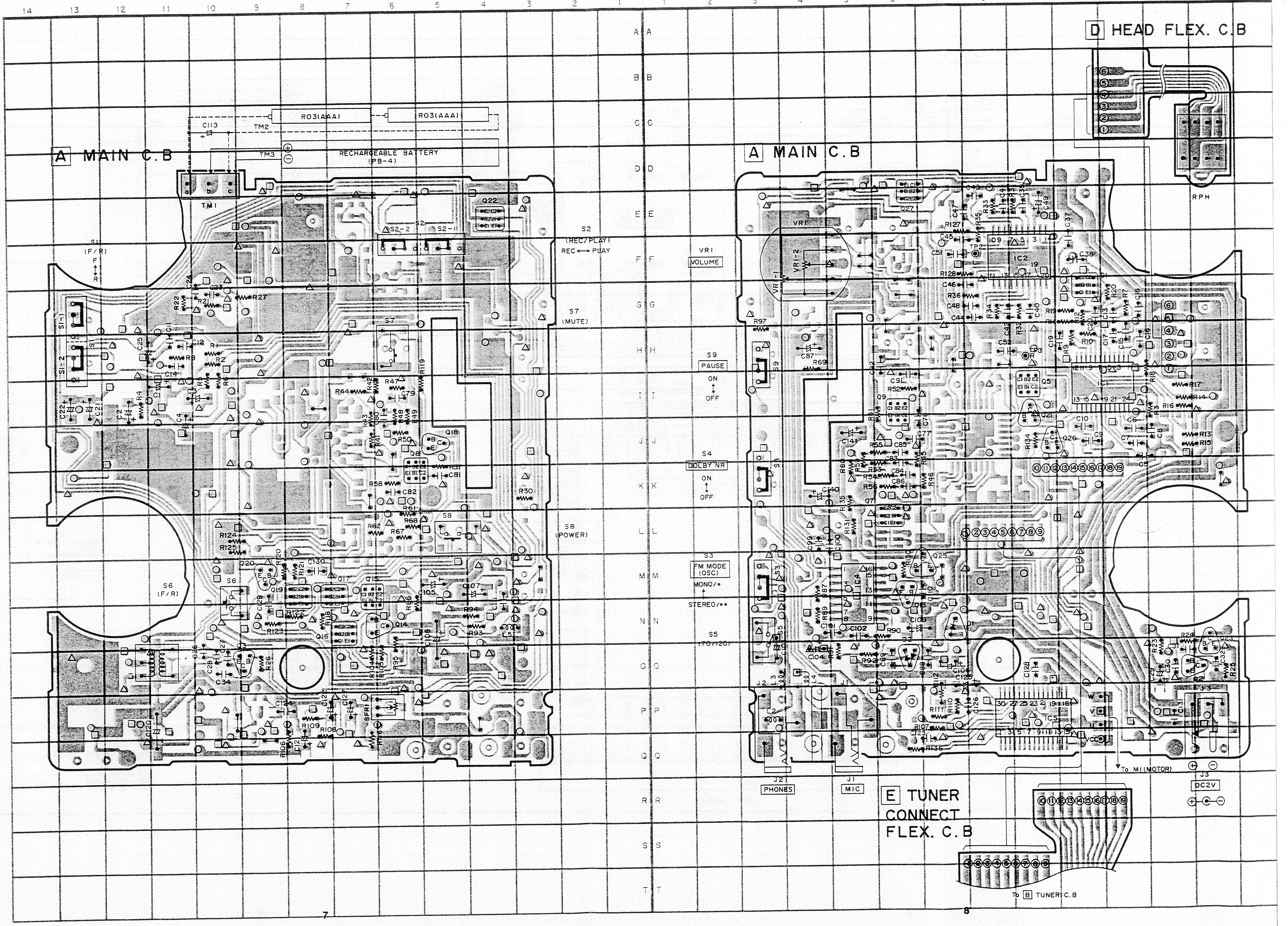
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO. | カンリ NO. | DESCRIPTION |
|---|---|---|---|
| 1 | 82-HJ9-901-210 | | IB, H |
| 2 | 82-HJ4-951-110 | | CARRYING, CASE |
| 3 | 09-028-105-010 | | BATT BOX ASSY PB〈AH, 3AH〉 |
| 4 | 09-028-104-010 | | BATT BOX ASSY UM〈AH, 3AH〉 |
| 5 | 87-041-073-010 | | CM-S35A |
| 6 | 87-042-163-019 | | AC-207HA〈AH, H, 3AH〉 |
| 7 | 87-047-116-010 | | PB-4 NAY |
| 8 | 87-048-256-110 | | HP-LV23NA |

# SCHEMATIC DIAGRAM – 1


A MAIN C.B
D HEAD FLEX.C.B
E TUNER CONNECT FLEX. C.B
TO B TUNER C.B
J1 MIC
J2 PHONES
J3 DC2V
IC1 TA8155FN PRE-REC AMP
IC2 BA1106F (S) DOLBY
IC4 TA7688F POWER AMP
IC5 TPIC326A0B GOV.
POWER SW
Q13 2SA1588Y (ZY)
Q14 2SA1362 GR (AEG) POWER SW
Q15 RN1605 (XE) POWER SW
Q16 RN4607 (VH) MUTE
Q17 RN4607 (VH) TU MUTE
Q18 RN1305 (XE) MUTE
Q19 HN1C01F (C1) MUTE
Q20 RN2307 (YH) MUTE
Q21 RN1305 (XH) TU SW
Q22 RN1607 (XH) MUTE
Q23 DTC144EU (26)
Q25 2SA1362 GR (AEG)
Q26 RN1305 (XE) TU+B SW
Q27 RN4607 (VH) REC+B
Q1 HN1C01F (C1) 70/120 SW
Q2 2SC4213 B (AB) BIAS OSC
Q3 2SC4116GR (LG) BEAT SW
Q5 RN1607 (XH) DOLBY SW
Q7 HN1C03F (C3) FLAT SW (DSL OFF SW)
Q8 HN1C01F (C1) DSL EQ
Q9 HN1C01F (C1) DSL AMP
S1 (F/R)
S2 (REC/PLAY)
S3 STEREO MONO
S3 FM MODE (DSC)
S4 DOLBY NR
S5 (70/120)
S6 (F/R)
S7 (MUTE)
S8 (POWER) SW
S9 PAUSE
COIL BIAS OSC
EH
Rch
RPH
Lch
M1 (MOTOR) ABL-10
PB-4
R03X2
TM1
TM2
TM3
VR1 20KAX2 VOLUME
RIPPLE FILTER
PV-OFF
MUTE
ALC DET
MIC A
MIC B
RADIO/TAPE
BUF A
BUF B
REC A
REC B
VREF
PB A
PB B
REC/PB
PW SW
BIAS
H-RADIO
TAPE:0 TU:1.8
PB:0 REC:1.8
P-GND
W
GND
VB
WB
C-SOFT2
C-SFT1
W-IN
C-START
REV
V-REF
PULSE
SAW
V
U
UB
U-IN
V-IN
BUFF-IN
BUFF-OUT
COM
VCC
IV-OUT
IV-IN
VI-IN
START
TP2
TP3
DOLBY OFF:0.74 DOLBY ON:0
ANT
TU-GND
TU R
TU L
MONO/ST
TU+B
TU IN
VCC
M-GND
NC
NC
NC
NC
FLAT (DSL)
F/ROUT
STOPOUT
TU-MUTE
REG+B
AMP+B

## WIRING – 1


A MAIN C.B
A MAIN C.B
D HEAD FLEX. C.B
E TUNER CONNECT FLEX. C.B
R03(AAA)
R03(AAA)
RECHARGEABLE BATTERY (P8-4)
C113
TM1
TM2
TM3
S1 (F/R) F ↕ R
S2 (REC/PLAY) REC ←→ PLAY
S7 (MUTE)
S8 (POWER)
S6 (F/R)
VR1 VOLUME
S9 PAUSE ON ↕ OFF
S4 DOLBY NR ON ↕ OFF
S3 FM MODE (OSC) MONO/• ↕ STEREO/••
S5 (70/120)
J2 PHONES
J1 MIC
J3 DC2V
To M1(MOTOR)
To B TUNER C.B
RPH
IC1
IC2
IC4
IC5
Q22
Q27
TP2
TP3
VCC
A A
B B
C C
D D
E E
F F
G G
H H
I I
J J
K K
L L
M M
N N
O O
P P
Q Q
R R
S S
T T
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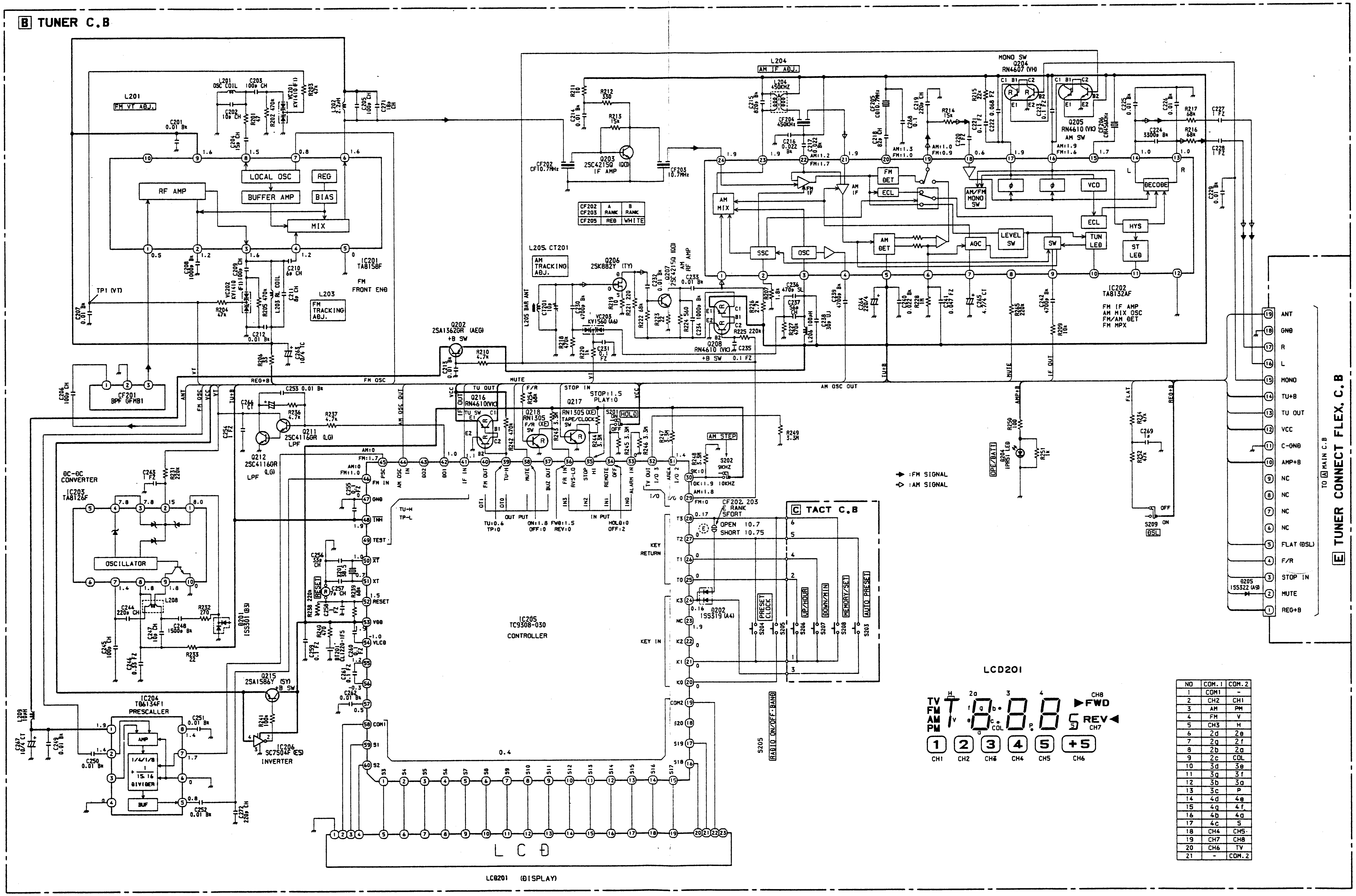
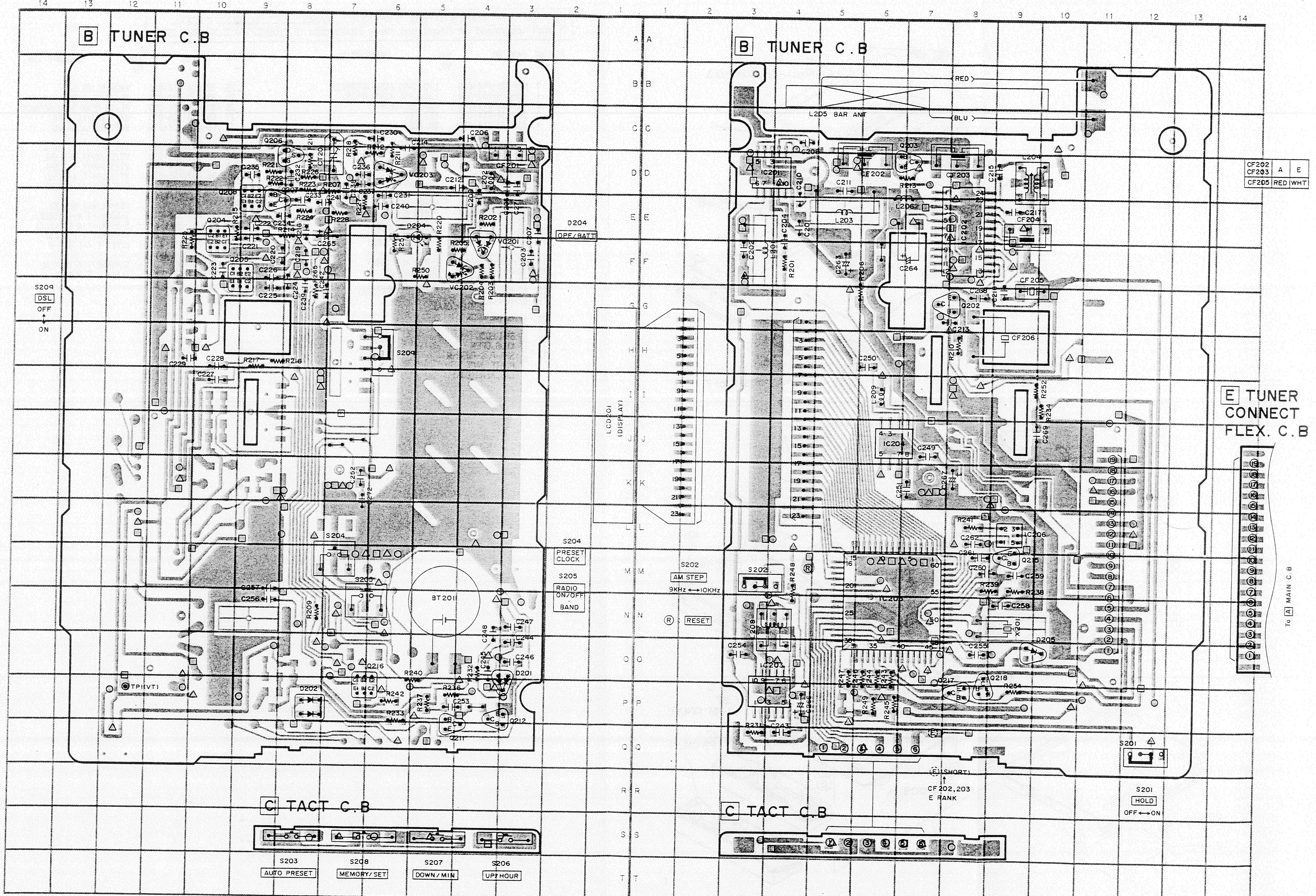
# SCHEMATIC DAIGRAM – 2


B TUNER C.B
L201 FM VT ADJ.
L201 OSC COIL
VC201 KV1410 (F1)
RF AMP
LOCAL OSC
BUFFER AMP
REG
BIAS
MIX
IC201 TA8158F FM FRONT END
L203 FM TRACKING ADJ.
TP1 (VT)
CF201 BPF GFMB1
CF202 10.7MHz
Q203 2SC4215Q (QO) IF AMP
CF203 10.7MHz
L204 AM IF ADJ.
L204 450KHZ
CF204 450KHZ
L205, CT201 AM TRACKING ADJ.
Q206 2SK882Y (TY)
Q207 2SC4215Q (QO) AM RF AMP
VC203 KV1560 (A6)
Q208 RN4610 (VK) +B SW
L205 BAR ANT
MONO SW Q204 RN4607 (VH)
Q205 RN4610 (VK) AM SW
AM MIX
FM DET
ECL
AM/FM MONO SW
VCO
DECODE
SSC
OSC
AM DET
AGC
LEVEL SW
SW
TUN LED
HYS
ST LED
IC202 TA8132AF FM IF AMP AM MIX OSC FM/AM DET FM MPX
Q202 2SA1362GR (AEG) +B SW
DC-DC CONVERTER IC203 TA8126F
OSCILLATOR
D201 1SS301 (D3)
Q211 2SC4116GR (LG) LPF
Q212 2SC4116GR (LG) LPF
Q216 RN4610 (VK) TU SW
Q218 RN1305 F/R (XE) SW
Q217 RN1305 (XE) TAPE/CLOCK SW
S201 HOLD
AM STEP
S202 9KHZ 10KHZ
IC205 TC9308-030 CONTROLLER
Q215 2SA1586Y (SY) +B SW
IC206 SC7S04F (ES) INVERTER
IC204 TB6134F1 PRESCALLER
AMP
1/4/1/8 15.16 DIVIDER
BUF
X201
CF202, 203 E RANK SFORT
OPEN 10.7
SHORT 10.75
KEY RETURN
KEY IN
D202 1SS319 (A4)
C TACT C.B
PRESET CLOCK
UP/HOUR
DOWN/MIN
MEMORY/SET
AUTO PRESET
S205 RADIO ON/OFF·BAND
LCD
LCD201 (DISPLAY)
LCD201
TV FM AM PM
FWD
REV
CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8
COL
1 2 3 4 5 +5
→ :FM SIGNAL
⇢ :AM SIGNAL
OPE/BATT D204 LED
S209 OSL ON OFF
D205 1SS322 (A5)
E TUNER CONNECT FLEX, C.B
TO A MAIN C.B
ANT
GND
R
L
MONO
TU+B
TU OUT
VCC
C-GND
AMP+B
NC
FLAT (OSL)
F/R
STOP IN
MUTE
REG+B

| NO | COM.1 | COM.2 |
|---|---|---|
| 1 | COM1 | - |
| 2 | CH2 | CH1 |
| 3 | AM | PM |
| 4 | FM | V |
| 5 | CH3 | H |
| 6 | 2d | 2e |
| 7 | 2g | 2f |
| 8 | 2b | 2a |
| 9 | 2c | COL |
| 10 | 3d | 3e |
| 11 | 3g | 3f |
| 12 | 3b | 3a |
| 13 | 3c | P |
| 14 | 4d | 4e |
| 15 | 4g | 4f |
| 16 | 4b | 4a |
| 17 | 4c | S |
| 18 | CH4 | CH5 |
| 19 | CH7 | CH8 |
| 20 | CH6 | TV |
| 21 | - | COM.2 |


B TUNER C.B
B TUNER C.B
C TACT C.B
C TACT C.B
E TUNER CONNECT FLEX. C.B
To A MAIN C.B
L205 BAR ANT
RED
BLU
CF202 CF203 A E
CF205 RED WHT
S209
DSL
OFF ↔ ON
D204
OPE/BATT
LCD201 (DISPLAY)
S204
PRESET CLOCK
S205
RADIO ON/OFF BAND
S202
AM STEP
9KHz ↔ 10KHz
Ⓡ : RESET
BT201
TP(VT)
E (SHORT)
CF202,203 E RANK
S201
HOLD
OFF ↔ ON
S203
AUTO PRESET
S208
MEMORY/SET
S207
DOWN/MIN
S206
UP/HOUR
IC201
IC202
IC203
IC204
IC205
IC206
VC201
VC202
VC203
CF201
CF202
CF203
CF204
CF205
CF206
X201
D201
D202
D204
D205
Q202
Q203
Q204
Q205
Q206
Q207
Q208
Q211
Q212
Q215
Q216
Q217
Q218
L201
L203
L204
L206
L209
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
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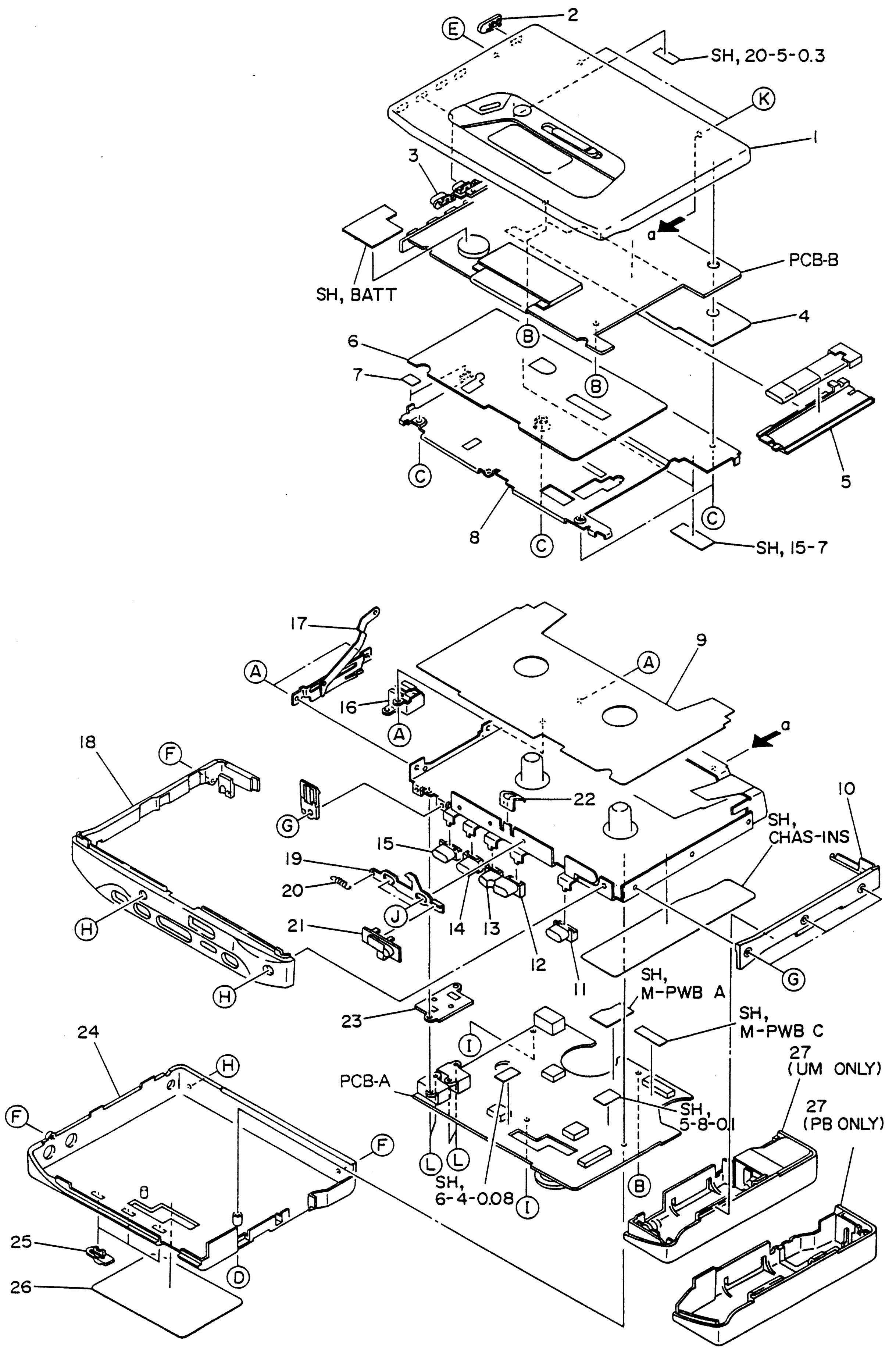
## MECHANICAL EXPLODED VIEW 1／1


2
E
SH, 20-5-0.3
K
1
3
a
PCB-B
SH, BATT
4
B
6
7
B
5
C
C
8
C
SH, 15-7
17
9
A
A
16
A
a
18
F
G
22
10
SH, CHAS-INS
15
19
20
J
14
13
21
H
12
11
G
H
SH, M-PWB A
23
SH, M-PWB C
24
H
I
27 (UM ONLY)
PCB-A
SH, 5-8-0.1
27 (PB ONLY)
F
F
L
L
SH, 6-4-0.08
I
B
25
26
D

## MECHANICAL PARTS LIST 1／1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO. | ｶﾝﾘ NO. | DESCRIPTION |
|---|---|---|---|
| 1 | 09-028-114-010 | | LID, CASS ASSY〈J303MK2〉 |
| 1 | 09-028-103-010 | | LID, CASS ASSY〈JX629〉 |
| 2 | 82-HJ4-017-010 | | KNOB, SLIDE H |
| 3 | 82-HJ4-014-010 | | KEY, SET |
| 4 | 82-HJ4-218-110 | | SH, FLEX |
| 5 | 82-HJ4-204-010 | | HLDR, ANT |
| 6 | 82-HJ4-217-010 | | SH, PWB |
| 7 | 80-HJ3-618-010 | | SH, BAT |
| 8 | 82-HJ4-201-110 | | HLDR, CASS |
| 9 | 82-ZM2-325-210 | | SH, CHAS |
| 10 | 82-HJ9-015-010 | | FRAME, BOT(GRA) |
| 11 | 82-HJ9-023-010 | | P-BTN, REC(GRA) |
| 12 | 82-HJ9-022-010 | | P-BTN, REW(GRA) |
| 13 | 82-HJ9-021-010 | | P-BTN, FF(GRA) |
| 14 | 82-HJ9-020-010 | | P-BTN, STOP(GRA) |
| 15 | 82-HJ9-019-010 | | P-BTN, PLAY(GRA) |
| 16 | 82-HJ4-207-010 | | HLDR, JACK DC |
| 17 | 82-HJ4-221-110 | | HLDR, ASSY |
| 18 | 82-HJ9-014-010 | | FRAME, CENTER(GRA) |
| 19 | 82-HJ4-205-010 | | PLATE, LOCK |
| 20 | 82-HJ4-222-110 | | SPR, LOCK |
| 21 | 82-HJ4-020-110 | | KNOB, OPEN |
| 22 | 82-HJ4-234-010 | | SPR-P, C-PUSH-N |
| 23 | 82-HJ4-208-010 | | PLATE, JACK |
| 24 | 82-HJ9-013-010 | | CAB, REAR(GRA) |
| 25 | 82-HJ4-016-010 | | KNOB, SLIDE R |
| 26 | 82-HJ9-018-010 | | PLATE, REAR(GRA)〈JX629〉 |
| 26 | 82-HJ9-026-010 | | PLATR, REAR 303〈J303MK2〉 |
| 27 | 09-028-105-010 | | BATT, BOX ASSY PB |
| 27 | 09-028-104-010 | | BATT, BOX ASSY UM |
| A | 87-263-500-010 | | V+1.4-1.4 1ｼｭ ｸﾛｰﾑ |
| B | 87-067-385-010 | | VT(ｼﾞｭｼｮｳ)1.4-2.5HL |
| C | 87-067-384-010 | | VT(ｼﾞｭｼｮｳ)1.4-3.5HL |
| D | 87-067-430-010 | | VT(ｼﾞｭｼｮｳ)1.4-5(ｸﾛ) |
| E | 87-067-628-010 | | S-SCRW, +1.4-1(BLK) |
| F | 87-067-706-010 | | ﾄｸﾅﾍﾞ+1.4-1.8(BLK) |
| G | 87-067-359-010 | | S-SCRW, +1.4-2.5(BLK) |
| H | 87-067-360-010 | | S-SCRW, +1.4-3.5(BLK) |
| I | 87-067-746-010 | | ﾋﾞｽｾﾚｰﾄM1.4-2(H0.5) |
| J | 87-067-738-010 | | ﾋﾝｼﾞﾋﾞｽ 1.4-1 BLK N |
| K | 87-067-986-010 | | S-HINGE 1.4-1BLK NL |
| L | 87-262-508-310 | | V+1.4-3.5 BLK |

# REFERENCE NAME LIST

## ELECTRICAL SECTION

| DESCRIPTION | REFERENCE NAME |
|---|---|
| ANT | ANTENNAS |
| C- | CHIP |
| C-CAP | CAP, CHIP |
| C-CAP TN | CAP, CHIP TANTALUM |
| C-COIL | COIL, CHIP |
| C-DI | DIODE, CHIP |
| C-DIODE | DIODE, CHIP |
| C-FET | FET, CHIP |
| C-FOTR | FILTER, CHIP |
| C-JACK | JACK, CHIP |
| C-LED | LED, CHIP |
| C-RES | RES, CHIP |
| C-SFR | SFR, CHIP |
| C-SLIDE SW | SLIDE SWITCH, CHIP |
| C-SW | SWITCH, CHIP |
| C-TR | TRANSISTOR, CHIP |
| C-VR | VOLUME, CHIP |
| C-ZENER | ZENER, CHIP |
| CAP, CER | CAP, CERA-SOL |
| CAP, E | CAP, ELECT |
| CAP, M/F | CAP, FILM |
| CAP, TC | CAP, CERA-SOL |
| CAP, TC-U | CAP, CERA-SOL SS |
| CAP, TN | CAP, TANTALUM |
| CERA FIL | FILTER, CERAMIC |
| CF | FILTER, CERAMIC |
| DL | DELAY LINE |
| E/CAP | CAP, ELECT |
| FILT | FILTER |
| FLTR | FILTER |
| FUSE RES | RES, FUSE |
| MOT | MOTOR |
| P-DIODE | PHOTO DIODE |
| P-SNSR | PHOTO SENSER |
| P-TR | PHOTO TRANSISTOR |
| POLY VARI | VARIABLE CAPACITOR |
| PPCAP | CAP, PP |
| PT | POWER TRANSFORMER |
| PTR, RES | PTR, MELF |
| RC | REMOTE CONTROLLER |
| RES NF | RES, NON-FLAMMABLE |
| RESO | RESONATOR |
| SHLD | SHIELD |
| SOL | SOLENOID |
| SPKR | SPEAKER |
| SW, LVR | SWITCH, LEVER |
| SW, RTRY | SWITCH, ROTARY |
| SW, SL | SWITCH, SLIDE |
| TC CAP | CAP, CERA-SOL |
| THMS | THERMISTOR |
| TR | TRANSISTOR |
| TRIMMER | CAP, TRIMMER |
| TUN-CAP | VARIABLE CAPACITOR |
| VIB, CER | RESONATOR, CERAMIC |
| VIB, XTAL | RESONATOR, CRYSTAL |
| VR | VOLUME |
| ZENER | DIODE, ZENER |
| ｻｰｼﾞｻﾌﾟﾚｯｻ | SERGESUPPRESSOR |
| ｾﾗｺﾝ | CAP, CERA |

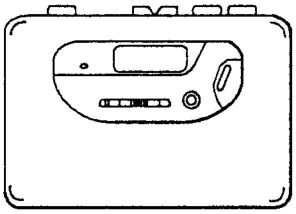
## MECHANICAL SECTION

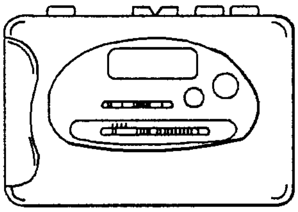
| DESCRIPTION | REFERENCE NAME |
|---|---|
| ADHESHIVE | SHEET ADHESHIVE |
| AZ | AZIMUTH |
| BAR-ANT | BAR-ANTENNA |
| BAT | BATTERY |
| BATT | BATTERY |
| BRG | BEARING |
| BTN | BUTTON |
| CAB | CABINET |
| CASS | CASSETTE |
| CHAS | CHASSIS |
| CLR | COLLAR |
| CONT | CONTROL |
| CRSR | CURSOR |
| CU | CUSHION |
| CUSH | CUSHION |
| DIR | DIRECTION |
| DUBB | DUBBING |
| FL | FRONT LOADING |
| FLY-WHL | FLYWHEEL |
| FR | FRONT |
| FUN | FUNCTION |
| G-CU | G-CUSHION |
| HDL | HANDOL |
| HIMERON | CLOTH |
| HINGE, BAT | HINGE, BATTERY |
| HLDR | HOLDER |
| HT-SINK | HEAT SINK |
| IB | INSTRUCTION BOOKLET |
| IDLE | IDLER |
| IND, L-R | INDICATOR, L-R |
| KEY, CONT | KEY, CONTROL |
| KEY, PRGM | KEY, PROGRAM |
| KNOB, SL | KNOB, SLIDE |
| LBL | LABEL |
| LID, BATT | LID, BATTERY |
| LID, CASS | LID, CASSETTE |
| LVR | LEVER |
| P-SP | P-SPRING |
| PANEL, CONT | PANEL, CONTORL |
| PANEL, FR | PANEL, FRONT |
| PRGM | PROGRAM |
| PULLY, LOAD MO | PULLY, LOADING MOTOR |
| RBN | RIBBON |
| S- | SPECIAL |
| SEG | SEGMENT |
| SH | SHEET |
| SHLD-SH | SHIELD-SHEET |
| SL | SLIDE |
| SP | SPRING |
| SP-SCREW | SPECIAL-SCREW |
| SPACER, BAT | SPACER, BATTERY |
| SPR | SPRING |
| SPR-P | P-SPRING |
| SPR-PC-PUSH | P-SPRING, C-PUSH |
| T-SP | T-SPRING |
| TERM | TERMINAL |
| TRIG | TRIGGER |
| TUN | TUNING |
| VOL | VOLUME |
| W | WASHER |
| WHL | WHEEL |
| WORM-WHL | WORM-WHEEL |
| ｼﾞｸｱｰﾑ | ARM, SHAFT |
| ｼﾞｸｶﾞｲﾄﾞ | GUIDE, SHAFT |
| ｽﾄﾗｯﾌﾟ | STRAP |
| ﾄｸﾅﾍﾞ | S-SCRW |
| ﾋﾝｼﾞ | HINGE |
| ﾋﾝｼﾞﾋﾞｽ | S-SCRW |
| ﾋﾞｽｾﾚｰﾄ | SCRW, SERRART |

1060

aiwa

# HS-JX719
# HS-JX619


HS-JX619


HS-JX719

STEREO RADIO
CASSETTE RECORDER

SERVICE MANUAL

- BASIC TAPE MECHANISM : 2ZM – 2
- TYPE. AH,AE,AZ

## SPECIFICATIONS

**Frequency range:**
FM: 87.5/87.5-108.1/108MHz (200/50kHz STEP)
AM: 530/531-1,710/1,602kHz (10/9kHz STEP)
**Maximum output:**
10mW+10mW (EIAJ/32Ω)
12mW+12mW (EIAJ/16Ω )
**Power source:**
Battery DC 2V, rechargeable battery (PB-4)
Battery DC 3V, R-03, LR-03(AAA) × 2
Domestic AC power (using the supplied AC adaptor)
**Battery life:**
Using rechargeable battery (PB-4)
Approx. 2 hours (EIAJ, REC/1 hour recharging)
Approx. 1.5 hours (EIAJ, PB 1mW/10 minutes recharging)
Approx. 3.5 hours (EIAJ, PB 1mW/1 hour recharging)
Using alkaline batteries (LR-03, AAA) × 2
Approx. 3 hours (EIAJ, REC)
Approx. 6.5 hours (EIAJ, PB 1mW)
**Dimensions:**
109.4 (W) × 78.5 (H) × 31.0 (D) mm
(4⅜ × 3⅛ × 1¼ in.)
**Weight:**
Approx. 220g (0.48 lb) incl. rechargeable battery

**<AC adaptor/AC-207>**
**Rated voltage:**
AC-207H AC 115V/230V, switchable
AC-207E, Z AC 230V
**Rated output:**
DC 2V 350mA

- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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- Under license from BBE Sound, Inc.

1060

S/M Code No. 0222 DATE OF ISSUE 3/1993 – I

# DISASSEMBLY INSTRUCTIONS

1. "Cab, Rear" Removal (See Figure – 1)
   1) Remove 5 screws (Ⓐ× 3, Ⓑ× 1, Ⓒ× 1) and remove the "Cab, Rear"。

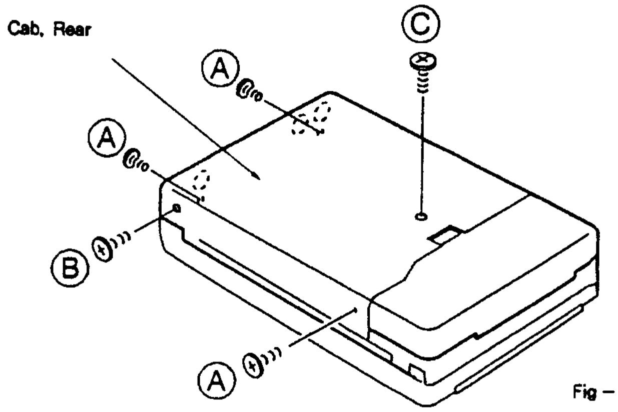


Fig – 1

2. "Lid, Cass ASSY" Removal (See Figure – 2)
   1) Remove 3 screws (Ⓐ× 1, Ⓑ× 2) sand remove the "Lid, Cass ASSY"。

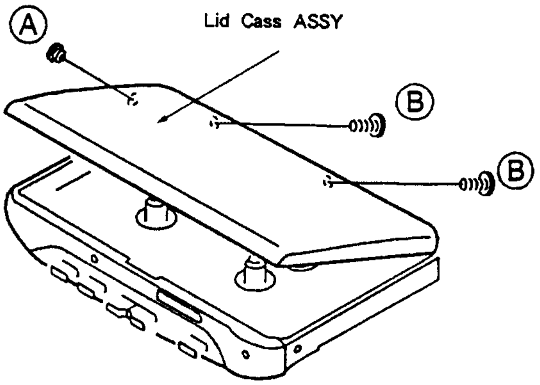

Ⓐ
Lid Cass ASSY
Ⓑ
Ⓑ

Fig – 2

3. "Hldr, Cass and Front C.B" Removal (See Figure – 3)
   1) Remove 4 screws (Ⓐ× 2, Ⓑ× 1, Ⓒ× 1) and remove the "Hldr, Cass"。
   2) Remove 2 screws (Ⓓ) and remove the "Tuner C.B".

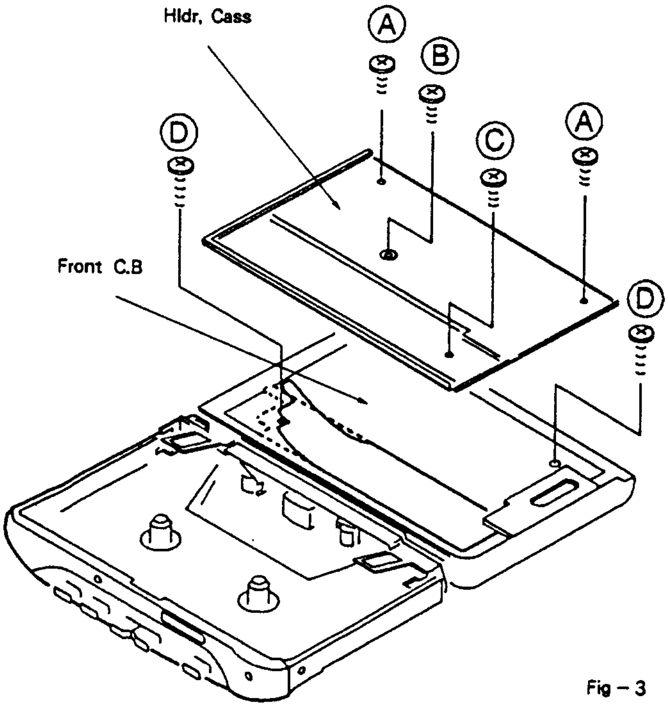

Hldr, Cass
Ⓐ
Ⓑ
Ⓓ
Ⓒ
Ⓐ
Front C.B
Ⓓ

Fig – 3

4. "Frame, Center and Frame, Bottom" Removal (See Figure – 4)
   1) Remove 2 screws (Ⓐ) and "Frame, Center" in the direction of arrow ①.
   2) Remove 3 screws (Ⓑ) and "Frame, Bottom"

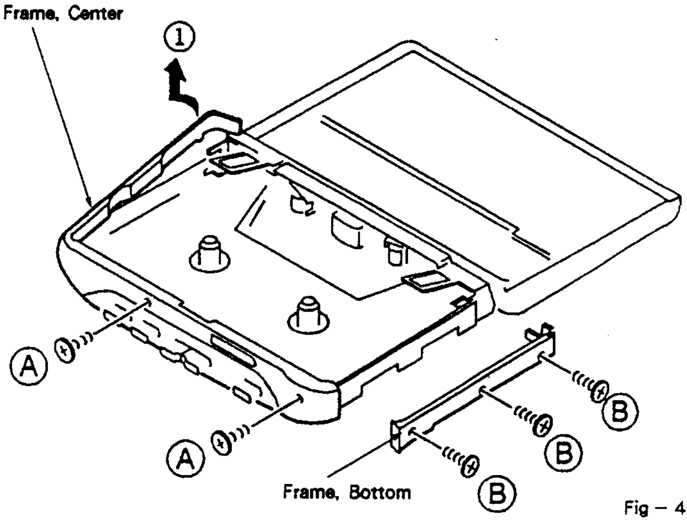

Frame, Center
①
Ⓐ
Ⓐ
Ⓑ
Ⓑ
Frame, Bottom
Ⓑ

Fig – 4

5. "Main C.B" Removal (See Figure – 5)
   1) Remove 7 screws (Ⓐ× 1, Ⓑ× 2, Ⓒ× 4) unsolder the soldered points and remove the "Main C.B"

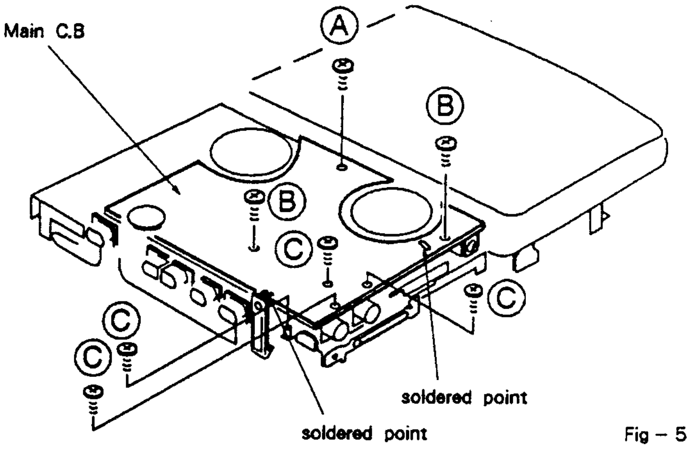

Main C.B
Ⓐ
Ⓑ
Ⓑ
Ⓒ
Ⓒ
Ⓒ
Ⓒ
soldered point
soldered point

Fig – 5

Motor Removal (See Figure – 6)

1) Remove screw (Ⓐ)
2) Release 6 Hooks and remove Holder FP.
3) Remove the Rotary Yoke , FP Coil and Rotor ASSY.

Motor Reinstallation (See Figure – 6)

a) Insert the Pin ASSY into the FP Coil and solder it.
b) Install the Rotary Yoke. FP Coil and Rotor ASSY into the chassis.
c) Install the Holder FP and tighten screw (Ⓐ).

To Check the operation when the Main C.B is opened (See Figure – 6)

A) Use Wires to connect the Motor Terminals and the terminals of the Main C.B.(See Figure – 6 – 1)
B) Set the Mechanism to the PLAY mode.
C) Turn the POWER SW on. Or, use a Wire to short the switch as shown in the figure below.
D) Turn the MUTE SW off. Or, use a Wire to short the switch as shown in the figure below.

Note A Supply power through the DC Jack and make sound output from the HP Jack.

Note B Set the R/F SW to the F position during FWD PLAY.
Set the R/P SW to the R position during RVS PLAY.

| PART NO | DESCRIPTION |
|---|---|
| 09 – 001 – 258 – 010 | 2ZM – 2 MOTOR KIT |

**Cautions When Reinstalling**

1) Be careful not to damage the FP Coil since the magnet is strong.
2) Check that no foreign matter adheres to the magnet, etc.
3) Insert a sheet of Paper, etc. between the Rotary Yoke and FP Coil to prevent damage to the FP Coil. (Remove the sheet of Paper when reinstalling.)
4) After reinstalling, turn the motor with your fingers and check that no abnormal sound is heard and it rotates smoothiy.

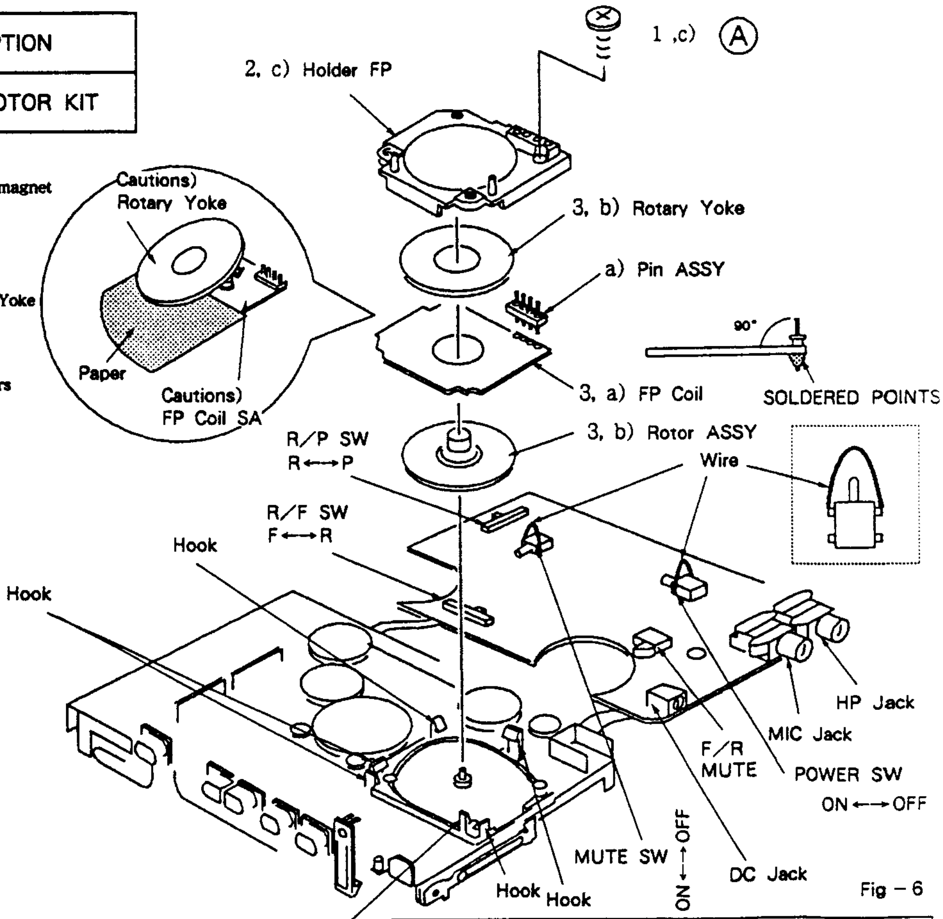

1 ,c) Ⓐ
2, c) Holder FP
Cautions)
Rotary Yoke
Paper
Cautions)
FP Coil SA
3, b) Rotary Yoke
a) Pin ASSY
90°
SOLDERED POINTS
3, a) FP Coil
3, b) Rotor ASSY
Wire
R/P SW
R←→P
R/F SW
F←→R
Hook
Hook
HP Jack
MIC Jack
F/R
MUTE
POWER SW
ON←→OFF
MUTE SW
ON←→OFF
DC Jack
Hook
Hook
Hook

Fig – 6

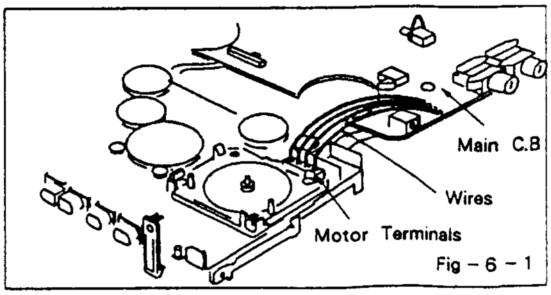

Main C.B
Wires
Motor Terminals

Fig – 6 – 1

# ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

### IC

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| | 87-001-894-080 | IC, TA8155FN |
| | 87-001-875-080 | IC, BA1106 F(S) |
| | 87-001-808-080 | IC, ASP5410 |
| | 87-020-234-080 | IC, TA7688F |
| | 87-002-406-080 | IC, TPIC326ADB |
| | 87-001-149-080 | IC, TA8158F |
| | 87-001-971-080 | IC, TA8132AF |
| | 87-001-145-080 | IC, TA8126F |
| | 87-001-151-080 | IC, TD6134F1 |
| | 87-002-334-010 | IC, TC9308-030 |
| | 87-017-360-080 | IC, SC7S04F(E5) |

### TRANSISTOR

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| | 87-026-467-080 | C-TR, HN1C01F(C1) |
| | 89-342-132-080 | C-TR, 2SC4213B(AB) |
| | 89-341-165-080 | C-TR, 2SC4116GR(LG) |
| | 87-026-475-080 | C-TR, RN1607(XH) |
| | 87-026-470-080 | C-TR, HN1C03F(C3) |
| | 89-115-864-080 | C-TR, 2SA1586Y(ZY) |
| | 89-113-625-080 | C-TR, 2SA1362GR(AEG) |
| | 87-026-474-080 | C-TR, RN1605(XE) |
| | 87-026-481-080 | C-TR, RN4607(VH) |
| | 87-026-412-080 | C-TR, RN1305(XE) |
| | 87-026-425-080 | C-TR, RN2307(YH) |
| | 87-026-414-080 | C-TR, RN1307(XH) |
| | 89-342-153-080 | C-TR, 2SC42150(Q0) |
| | 87-026-482-080 | C-TR, RN4610(VK) |
| | 89-508-824-080 | C-FET, 2SK882 Y(TY) |

### DIODE

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| | 87-001-553-080 | C-DIODE, 1SS322(A9) |
| | 87-001-167-080 | C-DIODE, 1SS302(C3) |
| | 87-001-166-080 | C-DIODE, 1SS301(B3) |
| | 87-001-221-080 | C-DIODE, 1SS319(A4) |

### MAIN CIRCUIT BOARD SECTION

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| C1 | 87-016-057-080 | C-CAP, TN 47-4 F95 |
| C2 | 87-010-746-080 | C-CAP, TN 10-4 |
| C3 | 87-015-923-080 | C-CAP, TN 0.22-35 |
| C4 | 87-015-923-080 | C-CAP, TN 0.22-35 |
| C5 | 87-010-805-080 | C-CAP, S 1-16 F |
| C6 | 87-010-805-080 | C-CAP, S 1-16 F |
| C7 | 87-010-787-080 | C-CAP, U 0.022-25B |
| C8 | 87-010-787-080 | C-CAP, U 0.022-25B |
| C9 | 87-010-805-080 | C-CAP, S 1-16 F |
| C10 | 87-010-805-080 | C-CAP, S 1-16 F |
| C11 | 87-012-273-080 | C-CAP, U 820P-50 B |
| C12 | 87-012-273-080 | C-CAP, U 820P-50 B |
| C13 | 87-012-274-080 | C-CAP, U 1000P-50 B |
| C14 | 87-012-274-080 | C-CAP, U 1000P-50 B |
| C15 | 87-010-805-080 | C-CAP, S 1-16 F |
| C16 | 87-010-805-080 | C-CAP, S 1-16 F |
| C17 | 87-012-195-080 | C-CAP, U 100P-50 CH |
| C18 | 87-012-195-080 | C-CAP, U 100P-50 CH |
| C19 | 87-010-958-080 | C-CAP, S 0.01-25 B J |
| C20 | 87-010-958-080 | C-CAP, S 0.01-25 B J |
| C21 | 87-016-224-080 | C-CAP, TN 22-2.5 |
| C22 | 87-016-224-080 | C-CAP, TN 22-2.5 |
| C23 | 87-010-787-080 | C-CAP, U 0.022-25B |
| C24 | 87-010-787-080 | C-CAP, U 0.022-25B |
| C25 | 87-016-224-080 | C-CAP, TN 22-2.5 |
| C26 | 87-012-278-080 | C-CAP, U 2200P-50 B |
| C27 | 87-012-270-080 | C-CAP, U 470P-50 B |
| C28 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C29 | 87-010-424-080 | C-CAP, TN 4.7-4 |
| C30 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C31 | 87-012-279-080 | C-CAP, U 2700P-50 B |
| C32 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C34 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C37 | 87-010-805-080 | C-CAP, S 1-16 F |
| C38 | 87-010-805-080 | C-CAP, S 1-16 F |
| C39 | 87-010-828-080 | C-CAP, U 0.033-16 F |
| C40 | 87-010-828-080 | C-CAP, U 0.033-16 F |
| C41 | 87-012-282-080 | C-CAP, U 4700P-50 B |
| C42 | 87-012-282-080 | C-CAP, U 4700P-50 B |
| C43 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C44 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C45 | 87-010-828-080 | C-CAP, U 0.033-16 F |
| C46 | 87-010-828-080 | C-CAP, U 0.033-16 F |
| C47 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C48 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C49 | 87-016-224-080 | C-CAP, TN 22-2.5 |
| C51 | 87-010-805-080 | C-CAP, S 1-16 F |
| C52 | 87-010-805-080 | C-CAP, S 1-16 F |
| C53 | 87-010-197-080 | C-CAP, S 0.01-25 B(JX719) |
| C54 | 87-012-286-080 | C-CAP, U 0.01-25 B(JX719) |
| C55 | 87-010-194-080 | C-CAP, S 0.047-25 F(JX719) |
| C56 | 87-010-829-080 | C-CAP, U 0.047-16F(JX719) |
| C57 | 87-010-194-080 | C-CAP, S 0.047-25 F(JX719) |
| C58 | 87-010-194-080 | C-CAP, S 0.047-25 F(JX719) |
| C59 | 87-010-320-080 | C-CAP, S 68P-50 CH(JX719) |
| C60 | 87-010-320-080 | C-CAP, S 68P-50 CH(JX719) |
| C61 | 87-010-194-080 | C-CAP, S 0.047-25 F(JX719) |
| C62 | 87-010-194-080 | C-CAP, S 0.047-25 F(JX719) |
| C63 | 87-010-424-080 | C-CAP, TN 4.7-4(JX719) |
| C64 | 87-010-424-080 | C-CAP, TN 4.7-4(JX719) |
| C65 | 87-015-934-080 | C-CAP, TN 2.2-4(JX719) |
| C66 | 87-015-934-080 | C-CAP, TN 2.2-4(JX719) |
| C67 | 87-012-142-080 | C-CAP, S 0.33-16 F(JX719) |
| C68 | 87-012-142-080 | C-CAP, S 0.33-16 F(JX719) |
| C69 | 87-012-266-080 | C-CAP, U 220P-50 B(JX719) |
| C70 | 87-012-266-080 | C-CAP, U 220P-50 B(JX719) |
| C71 | 87-010-805-080 | C-CAP, S 1-16 F(JX719) |
| C72 | 87-010-424-080 | C-CAP, TN 4.7-4(JX719) |
| C73 | 87-010-746-080 | C-CAP, TN 10-4(JX719) |
| C75 | 87-010-805-080 | C-CAP, S 1-16 F |
| C76 | 87-010-805-080 | C-CAP, S 1-16 F(JX719) |
| C77 | 87-010-805-080 | C-CAP, S 1-16 F |
| C78 | 87-010-805-080 | C-CAP, S 1-16 F |
| C79 | 87-010-178-080 | C-CAP, S 1000P-50 B |
| C80 | 87-010-178-080 | C-CAP, S 1000P-50 B |
| C81 | 87-010-787-080 | C-CAP, U 0.022-25B |
| C82 | 87-010-787-080 | C-CAP, U 0.022-25B |
| C83 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C84 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C85 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C86 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C87 | 87-016-057-080 | C-CAP, TN 47-4 F95 |
| C88 | 87-010-805-080 | C-CAP, S 1-16 F |
| C89 | 87-010-805-080 | C-CAP, S 1-16 F |
| C90 | 87-016-057-080 | C-CAP, TN 47-4 F95(JX719) |
| C91 | 87-010-805-080 | C-CAP, S 1-16 F |
| C92 | 87-010-805-080 | C-CAP, S 1-16 F |
| C93 | 87-010-831-080 | C-CAP, U 0.1-16F(JX719) |
| C94 | 87-010-831-080 | C-CAP, U 0.1-16F(JX719) |
| C95 | 87-012-284-080 | C-CAP, U 6800P-50 B(JX719) |
| C96 | 87-012-284-080 | C-CAP, U 6800P-50 B'JX719) |
| C97 | 87-010-805-080 | C-CAP, S 1-16 F(JX719) |
| C98 | 87-010-805-080 | C-CAP, S 1-16 F(JX719) |
| C99 | 87-012-274-080 | C-CAP, U 1000P-50 B |
| C100 | 87-012-274-080 | C-CAP, U 1000P-50 B |
| C101 | 87-010-805-080 | C-CAP, S 1-16 F |
| C102 | 87-010-805-080 | C-CAP, S 1-16 F |
| C103 | 87-010-824-010 | CAP, E 220-2 (MJ) |

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| C104 | 87-010-824-010 | CAP, E 220-2 (MJ) |
| C105 | 87-016-224-080 | C-CAP, TN 22-2.5 |
| C106 | 87-016-252-080 | C-CAP, TN 15-4 |
| C107 | 87-016-057-080 | C-CAP, TN 47-4 F95 |
| C108 | 87-010-668-080 | C-CAP, E 220-4 MV |
| C109 | 87-016-057-080 | C-CAP, TN 47-4 F95 |
| C110 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C111 | 87-010-805-080 | C-CAP, S 1-16 F |
| C113 | 84-439-620-080 | CAP, E 470-4 |
| C120 | 87-010-668-080 | C-CAP, E 220-4 MV |
| C121 | 87-016-174-080 | C-CAP, TN 4.7-4 F95Q |
| C122 | 87-016-168-080 | C-CAP, TN 0.47-25 |
| C123 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C124 | 87-016-164-080 | C-CAP, TN 0.1-35 F95Q |
| C125 | 87-010-504-080 | C-CAP, TN 0.47-25 |
| C126 | 87-010-829-080 | C-CAP, U 0.047-16F |
| C127 | 87-016-169-080 | C-CAP, TN 0.68-20 |
| C128 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C129 | 87-012-142-080 | C-CAP, TN 0.33-16F |
| C130 | 87-012-142-080 | C-CAP, TN 0.33-16F |
| C131 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C140 | 87-010-483-010 | CAP, E 220-4 |
| C141 | 87-010-483-010 | CAP, E 220-4 |
| J1 | 87-099-009-010 | JACK 3.5 BLK(L) N |
| J2 | 87-099-009-010 | JACK 3.5 BLK(L) N |
| J3 | 87-049-549-010 | JACK, DC |
| L1 | 87-007-270-080 | C-COIL, OSC BIAS |
| L2 | 87-003-234-080 | C-COIL, S 0.22 UH |
| L3 | 87-003-240-080 | C-COIL, S 3.3 UH |
| L4 | 87-003-240-080 | C-COIL, S 3.3 UH |
| L5 | 87-003-240-080 | C-COIL, S 3.3 UH |
| R112 | 87-022-043-080 | C-RES, M M/F 8.2K-1/8 |
| S1 | 87-036-244-080 | C-SW, SLIDE 1-2-2(NC) |
| S2 | 87-036-244-080 | C-SW, SLIDE 1-2-2(NC) |
| S3 | 87-036-123-080 | C-SW, SLIDE 1-1-2 |
| S4 | 87-036-123-080 | C-SW, SLIDE 1-1-2 |
| S5 | 82-ZM2-620-010 | SW, LEAF BSW371 |
| S6 | 87-036-312-080 | C-SW, PUSH 102MH4 |
| S7 | 87-036-237-080 | C-SW, PUSH |
| S8 | 87-036-237-080 | C-SW, PUSH |
| S9 | 87-036-123-080 | C-SW, SLIDE 1-1-2 |
| SFR1 | 87-024-611-080 | C-SFR, 4.7K EVM 3SS |
| TM1 | 82-HJ4-209-010 | HLDR, TERM-B |
| VR1 | 87-024-583-010 | VR, 20KAX2 DIA14 |

TUNER CIRCUIT BOARD SECTION

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| BT201 | 81-HR2-611-010 | BAT, CL1220-1F5 |
| C201 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C202 | 87-010-154-080 | C-CAP, S 10P-50 CH |
| C203 | 87-012-195-080 | C-CAP, U 100P-50 CH |
| C204 | 87-012-176-080 | C-CAP, U 15P-50 CH |
| C205 | 87-012-195-080 | C-CAP, U 100P-50 CH |
| C206 | 87-012-195-080 | C-CAP, U 100P-50 CH |
| C207 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C208 | 87-012-274-080 | C-CAP, U 1000P-50 B |
| C209 | 87-012-195-080 | C-CAP, U 100P-50 CH |
| C210 | 87-012-168-080 | C-CAP, U 6P-50 CH |
| C211 | 87-010-152-080 | C-CAP, S 8P-50 CH |
| C212 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C213 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C214 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C215 | 87-012-273-080 | C-CAP, U 820P-50 B |
| C216 | 87-010-787-080 | C-CAP, U 0.022-25B |
| C217 | 87-010-787-080 | C-CAP, U 0.022-25B |
| C218 | 87-012-193-080 | C-CAP, U 82P-50 CH |
| C219 | 87-012-199-080 | C-CAP, U 220P-50 CH |
| C220 | 87-010-805-080 | C-CAP, S 1-16 F |
| C221 | 87-010-831-080 | C-CAP, U 0.1-16F |

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| C222 | 87-010-830-080 | C-CAP, U 0.068-16F |
| C223 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C224 | 87-012-280-080 | C-CAP, U 3300P-50 B |
| C225 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C226 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C227 | 87-010-805-080 | C-CAP, S 1-16 F |
| C228 | 87-010-805-080 | C-CAP, S 1-16 F |
| C229 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C230 | 87-012-282-080 | C-CAP, U 4700P-50 B |
| C231 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C232 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C233 | 87-012-286-080 | C-CAP, U 0.01-25 B |
| C234 | 87-012-274-080 | C-CAP, U 1000P-50 B |
| C235 | 87-010-831-080 | C-CAP, U 0.1-16F |
| C236 | 87-010-872-080 | C-CAP, U 470P-50 SL |
| C237 | 87-012-337-080 | C-CAP, U 56P-50 CH |
| C238 | 87-012-251-080 | C-CAP, U 27P-50 UJ |
| C239 | 87-012-282-080 | C-CAP, U 4700P-50 B |
| C240 | 87-010-787-080 | C-CAP, U 0.022-25B |
| C241 | 87-010-829-080 | C-CAP, U 0.047-16F |
| C242 | 87-012-282-080 | C-CAP, U 4700P-50 B |
| C243 | 87-010-805-080 | C-CAP, S 1-16 F |
| C244 | 87-012-156-080 | C-CAP, S 220P-50 CH |
| C245 | 87-012-195-080 | C-CAP, U 100P-50 CH |
| C246 | 87-012-142-080 | C-CAP, S 0.33-16 F |
| C247 | 87-010-154-080 | C-CAP, S 10P-50 CH |
| C248 | 87-012-276-080 | C-CAP, U 1500P-50 B |
| C249 | 87-010-197-080 | C-CAP, S 0.01-25 B |
| C250 | 87-010-197-080 | C-CAP, S 0.01-25 B |
| C251 | 87-010-197-080 | C-CAP, S 0.01-25 B |
| C252 | 87-010-197-080 | C-CAP, S 0.01-25 B |
| C253 | 87-010-197-080 | C-CAP, S 0.01-25 B |
| C254 | 87-010-805-080 | C-CAP, S 1-16 F |
| C255 | 87-010-196-080 | C-CAP, S 0.1-25 F |
| C256 | 87-012-184-080 | C-CAP, U 33P-50 CH |
| C257 | 87-012-169-080 | C-CAP, U 7P-50 CH |
| C258 | 87-010-805-080 | C-CAP, S 1-16 F |
| C259 | 87-010-196-080 | C-CAP, S 0.1-25 F |
| C260 | 87-010-196-080 | C-CAP, S 0.1-25 F |
| C261 | 87-010-196-080 | C-CAP, S 0.1-25 F |
| C262 | 87-010-197-080 | C-CAP, S 0.01-25 B |
| C263 | 87-010-746-080 | C-CAP, TN 10-4 |
| C264 | 87-010-483-010 | CAP, E 220-4 |
| C265 | 87-010-424-080 | C-CAP, TN 4.7-4 |
| C266 | 87-010-505-080 | C-CAP, TN 1-16 |
| C267 | 87-010-746-080 | C-CAP, TN 10-4 |
| C268 | 87-010-196-080 | C-CAP, S 0.1-25 F |
| C269 | 87-010-805-080 | C-CAP, S 1-16 F |
| C270 | 87-010-805-080 | C-CAP, S 1-16 F(JX719) |
| C271 | 87-012-178-080 | C-CAP, U 18P-50 CH |
| CF201 | 87-008-406-080 | BPF, GFMB1 |
| CF202 | 87-008-455-080 | C-FILTER KIT 10.7 |
| CF203 | +++ | C-FILTER KIT 10.7 |
| CF205 | +++ | C-FILTER KIT 10.7 |
| CF204 | 87-008-396-080 | C-FILTER, CF, 450KHZ |
| CF206 | 87-008-397-010 | FILTER, SAW, 456, F18 |
| CT201 | 87-011-189-080 | C-TRIMMER, CTZ-10A |
| D204 | 87-001-945-080 | C-LED 1PR51 |
| L201 | 82-HJ4-610-010 | COIL, FM OSC |
| L202 | 87-005-564-080 | C-COIL, S 2.2UH K |
| L203 | 82-HJ4-611-010 | COIL, FM RF |
| L204 | 87-008-420-080 | C-IFT, 450K, MW |
| L205 | 80-HJ1-613-010 | BAR, ANTENA ASSY |
| L206 | 87-003-247-080 | C-COIL, 100UH J |
| L208 | 87-006-173-080 | C-COIL, DD, 5CDL |
| L209 | 87-003-243-080 | C-COIL, S 10UH K |
| LCD201 | 82-HJ4-609-010 | LCD ASSY, 030 |
| S201 | 87-036-123-080 | C-SW, SLIDE 1-1-2 |
| S202 | 87-036-123-080 | C-SW, SLIDE 1-1-2 |

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| L202 | 87-005-564-080 | C-COIL, S 2.2UH K |
| L203 | 82-HJ4-611-010 | COIL, FM RF |
| L204 | 87-008-420-080 | C-IFT, 450K, MW |
| L205 | 80-HJ1-613-010 | BAR, ANTENA ASSY |
| L206 | 87-003-247-080 | C-COIL, 100UH J |
| L208 | 87-006-173-080 | C-COIL, DD, 5CDL |
| L209 | 87-003-243-080 | C-COIL, S 10UH K |
| LCD201 | 82-HJ4-609-010 | LCD ASSY, 030 |
| S201 | 87-036-123-080 | C-SW, SLIDE 1-1-2 |
| S202 | 87-036-123-080 | C-SW, SLIDE 1-1-2 |
| S204 | 87-030-152-080 | C-SW, TACT SKHU260 |
| S205 | 87-030-152-080 | C-SW, TACT SKHU260 |
| S209 | 87-036-146-080 | C-SW SLIDE 1-1-4(FOR JX719) |
| S209 | 87-036-123-080 | C-SW, SLIDE 1-1-2(FOR JX619) |
| S210 | 87-036-146-080 | C-SW SLIDE 1-1-4(JX719) |
| VC201 | 87-026-359-080 | C-VARICAP, KV1410(F1) |
| VC202 | 87-026-359-080 | C-VARICAP, KV1410(F1) |
| VC203 | 87-026-435-080 | C-VARICAP, KV1560(A6) |
| X201 | 87-030-180-010 | X'TAL KF-38R5-8A |

TACT CIRCUIT BOARD SECTION

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| S203 | 87-036-220-080 | C-SW, T |
| S206 | 87-036-220-080 | C-SW, T |
| S207 | 87-036-220-080 | C-SW, T |
| S208 | 87-036-220-080 | C-SW, T |

HEAD FLEX. CIRCUIT BOARD SETI

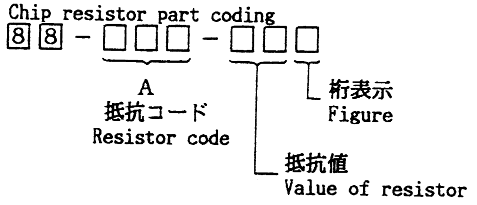
| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
|  | 82-HJ4-601-010 | HEAD ASSY |

MISCELLANEOUS

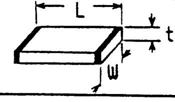
| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| M1 | 09-001-258-010 | MOTOR KIT ABL-10 |

## ○チップ抵抗部品コード／CHIP RESISTOR PART CODE

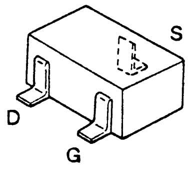
チップ抵抗部品コードの成り立ち
Chip resistor part coding



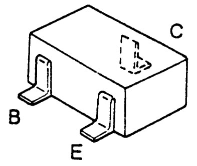
チップ抵抗
Chip resistor

| Wattage<br>容量 | Type<br>種類 | Tolerance<br>許容誤差 | Symbol<br>記号 | Dimensions／寸法(mm) |  |  |  | Resistor Code : A<br>抵抗コード : A |
|---|---|---|---|---|---|---|---|---|
|  |  |  |  | Form/外形 | L | W | t |  |
| 1/32W | 1608 | ±5% | CJ |  | 1.6 | 0.8 | 0.35 | 108 |
| 1/10W | 2125 | ±5% | CJ |  | 2 | 1.25 | 1.45 | 118 |
| 1/8W | 3216 | ±5% | CJ |  | 3.2 | 1.6 | 0.5<br>~0.7 | 128 |

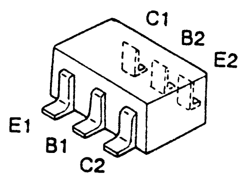
## TRANSISTOR ILLUSTRATION



2SK882

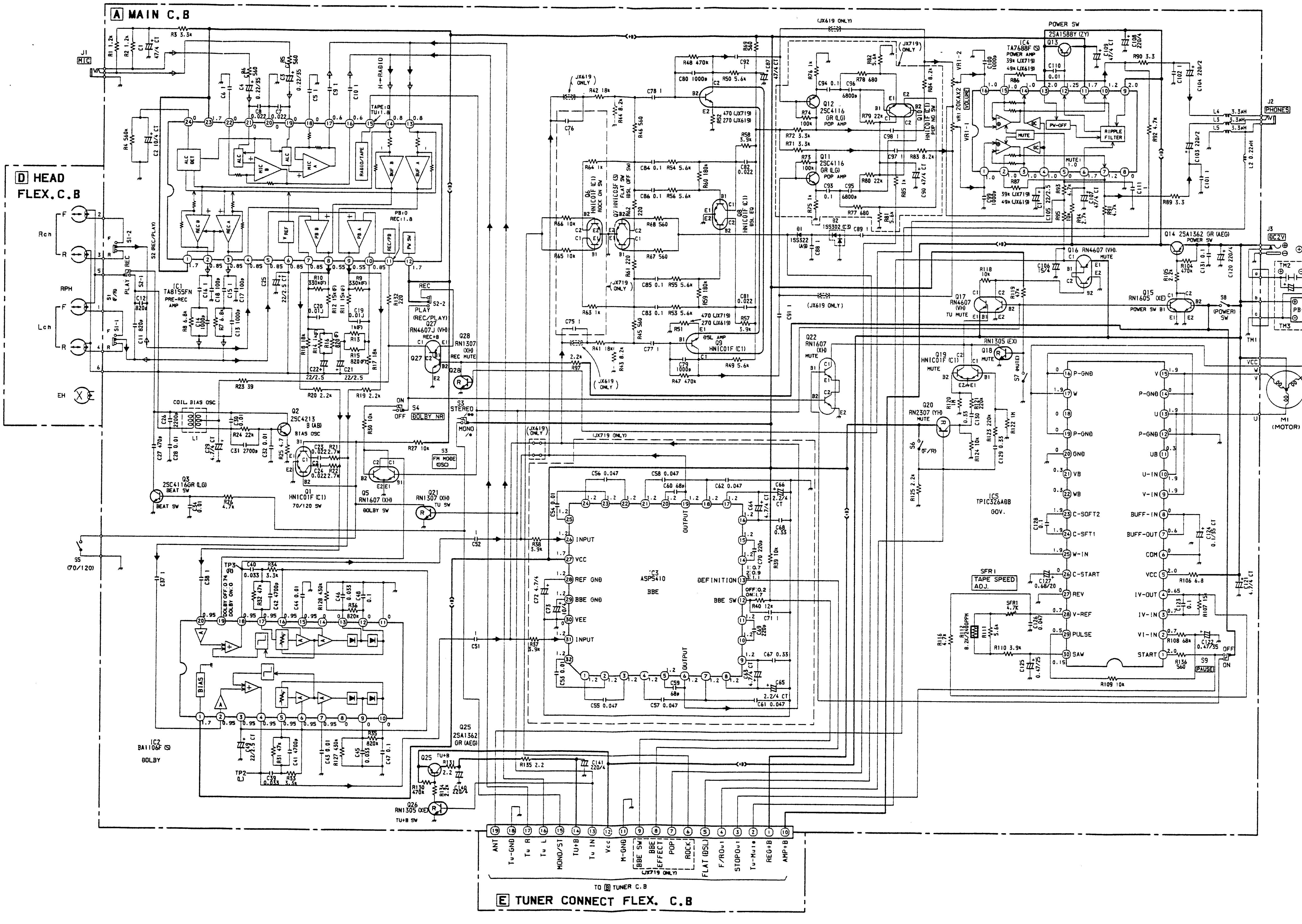


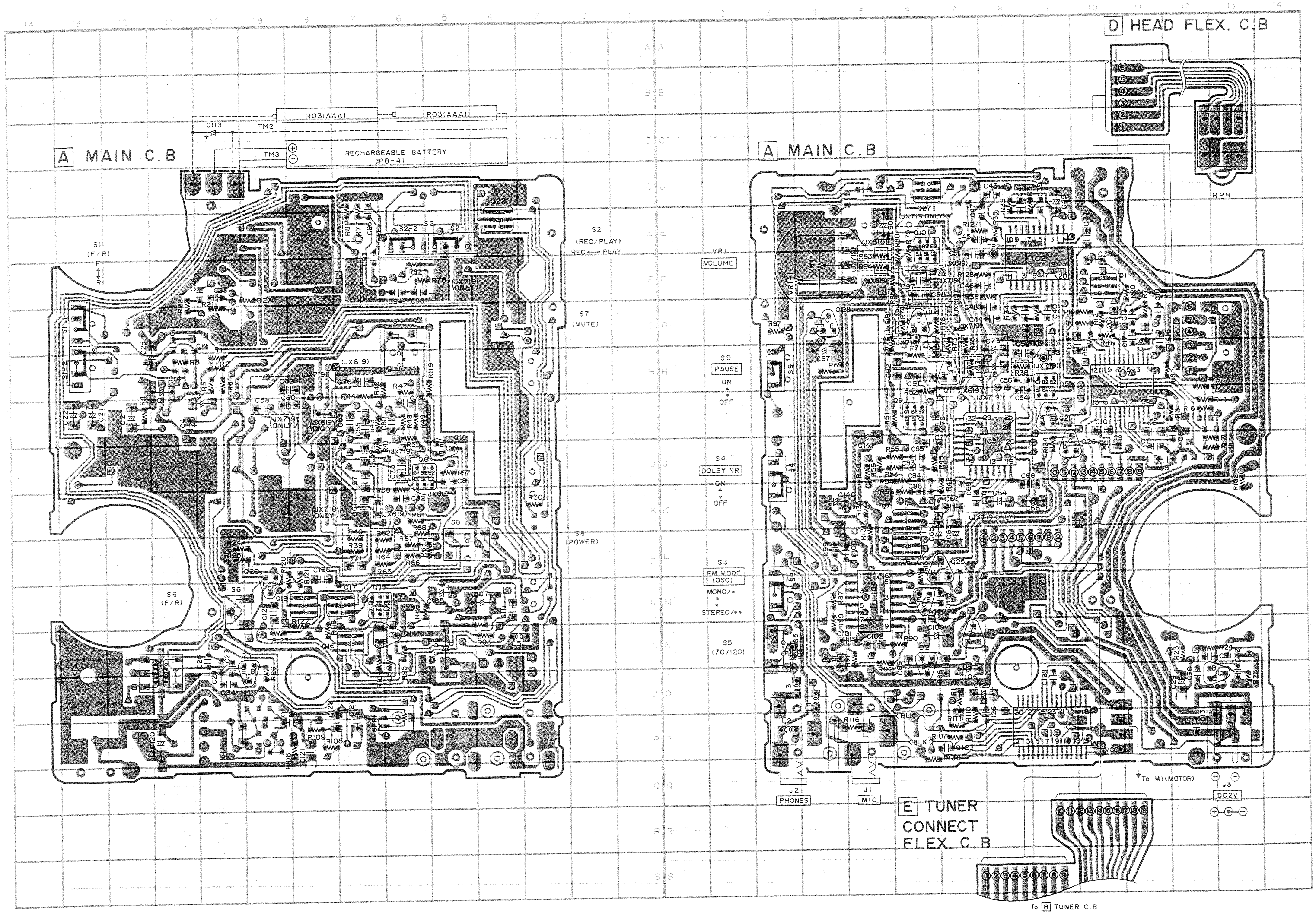
2SA1362
2SA1586
2SC4116
2SC4213
2SC4215
RN1305
RN1307
RN2307



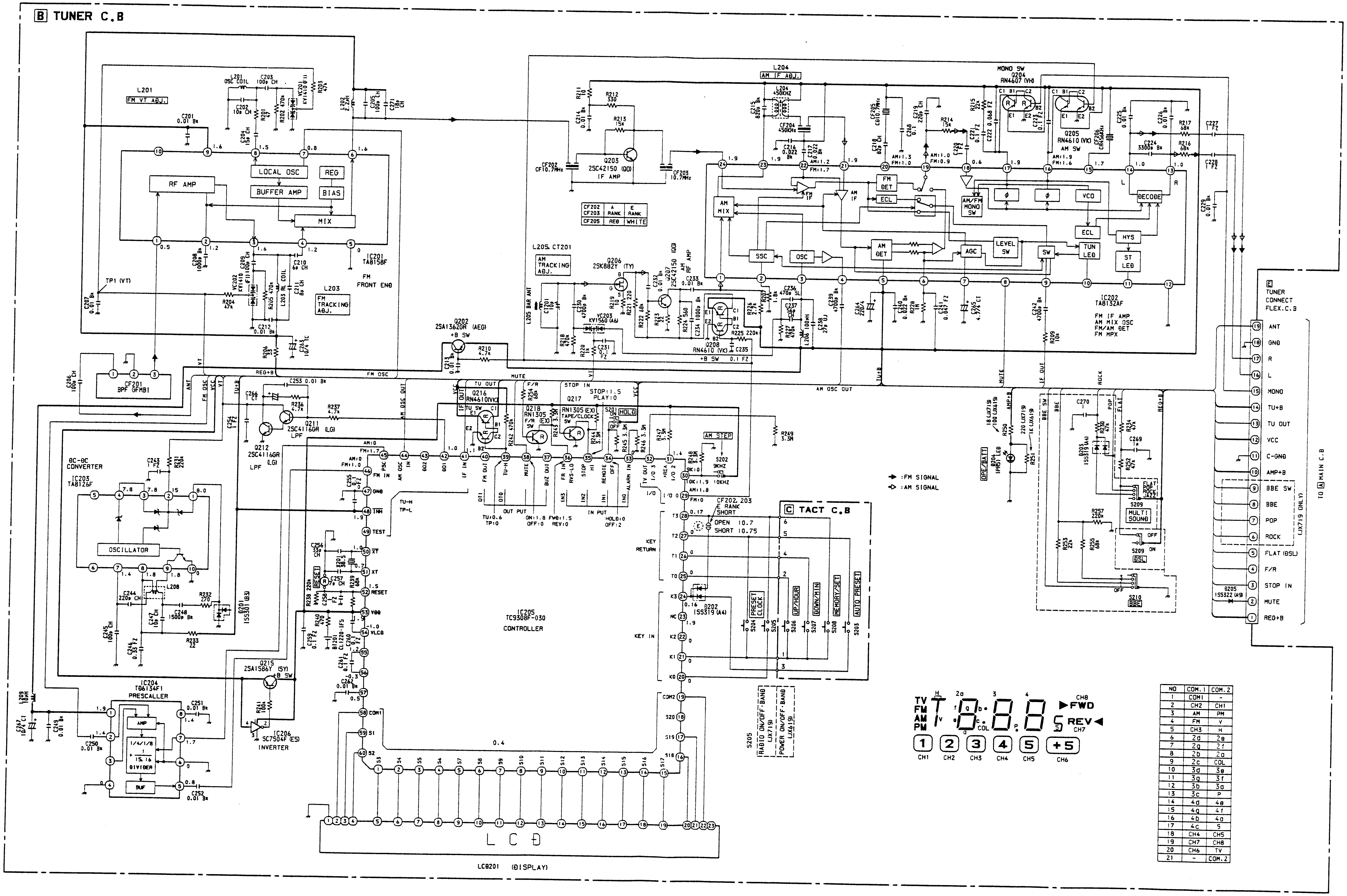
HN1C01
HN1C03
RN1605
RN1607
RN4607
RN4610

# SCHEMATIC DIAGRAM – 1

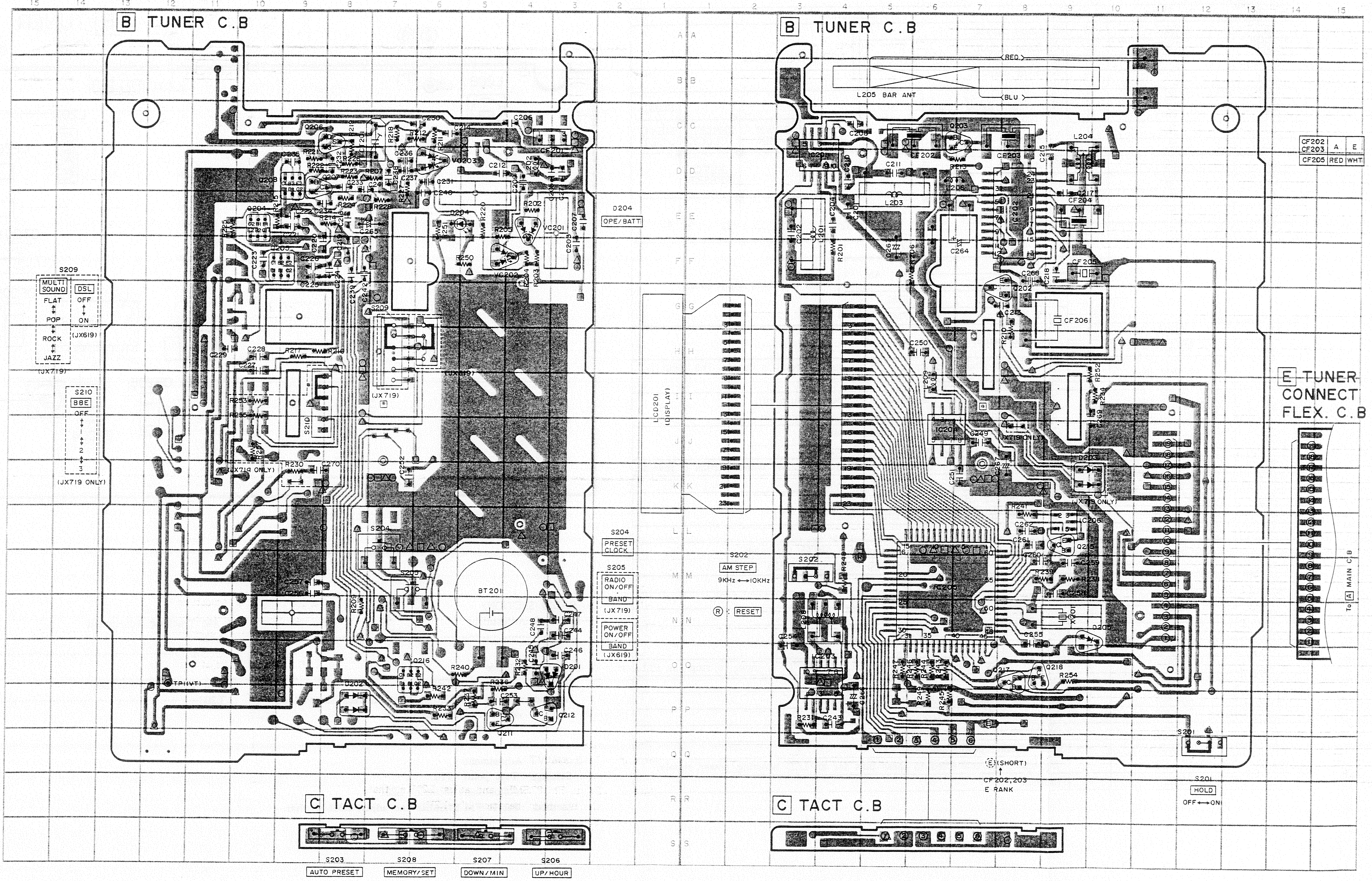

A MAIN C.B
D HEAD FLEX.C.B
E TUNER CONNECT FLEX. C.B
TO B TUNER C.B
J1 MIC
J2 PHONES
J3 DC2V
IC1 TA8155FN PRE-REC AMP
IC2 BA1106F (S) DOLBY
IC3 ASP5410 BBE
IC4 TA7688F (S) POWER AMP
IC5 TPIC326A8B GOV.
COIL BIAS OSC
Q1 HN1C01F (C1) 70/120 SW
Q2 2SC4213 B (AB) BIAS OSC
Q3 2SC4116GR (LG) BEAT SW
Q5 RN1607 (XH) DOLBY SW
Q6 HN1C01F (C1) ROCK ON SW
Q7 HN1C03F (S) FLAT SW (DSL OFF SW)
Q8 HN1C01F (C1) DSL EQ
Q9 HN1C01F (C1) DSL AMP
Q10 HN1C01F (C1) POP NO SW
Q11 2SC4116 GR (LG) POP AMP
Q12 2SC4116 GR (LG) POP AMP
Q13 2SA1588Y (ZY) POWER SW
Q14 2SA1362 GR (AEG) POWER SW
Q15 RN1605 (XE) POWER SW
Q16 RN4607 (VH) MUTE
Q17 RN4607 (VH) TU MUTE
Q18 RN1305 (EX) MUTE
Q19 HN1C01F (C1) MUTE
Q20 RN2307 (YH) MUTE
Q21 RN1307 (XH) TU SW
Q22 RN1607 (XH) MUTE
Q25 2SA1362 GR (AEG)
Q26 RN1305 (XE) TU+B SW
Q27 RN4607J (VH) REC+B
Q28 RN1307 (XH) REC MUTE
S1 F/R
S2 REC/PLAY
S3 FM MODE (OSC)
S3 STEREO / MONO
S4 DOLBY NR ON / OFF
S5 (70/120)
S6 (F/R)
S7 MUTE
S8 (POWER) SW
S9 PAUSE
SFR1 TAPE SPEED ADJ.
VR1 20KAX2 VOLUME
RIPPLE FILTER
PW-OFF
MUTE
ALC DET
MIC A
MIC B
BUF A
BUF B
REC A
REC B
PB A
PB B
RADIO/TAPE
H-RADIO
BIAS
Rch
Lch
RPH
EH
M1 (MOTOR)
PB-4
R03X2
TM1
TM2
TM3
(JX619 ONLY)
(JX719 ONLY)
P-GND
W
V
U
UB
U-IN
V-IN
VB
WB
C-SOFT2
C-SFT1
W-IN
C-START
REV
V-REF
PULSE
SAW
BUFF-IN
BUFF-OUT
COM
VCC
IV-OUT
IV-IN
VI-IN
START
INPUT
REF GND
BBE GND
VEE
OUTPUT
DEFINITION
BBE SW
ANT
Tu-GND
Tu R
Tu L
MONO/ST
TU+B
Tu IN
Vcc
M-GND
BBE SW
BBE EFFECT
POP
ROCK
FLAT (DSL)
F/ROut
STOPout
Tu-Mute
REG+B
AMP+B
(JX719 ONLY)


A MAIN C.B
RO3(AAA)
RO3(AAA)
C113
TM2
TM3
RECHARGEABLE BATTERY
(PB-4)
S1
(F/R)
S2
(REC/PLAY)
REC ⟷ PLAY
S7
(MUTE)
S8
(POWER)
S6
(F/R)
VR1
VOLUME
S9
PAUSE
ON
OFF
S4
DOLBY NR
ON
OFF
S3
FM MODE
(OSC)
MONO/•
STEREO/••
S5
(70/120)
D HEAD FLEX. C.B
RPH
A MAIN C.B
J2
PHONES
J1
MIC
E TUNER
CONNECT
FLEX. C.B
To M1 (MOTOR)
J3
DC2V
To B TUNER C.B

# SCHEMATIC DIAGRAM – 2

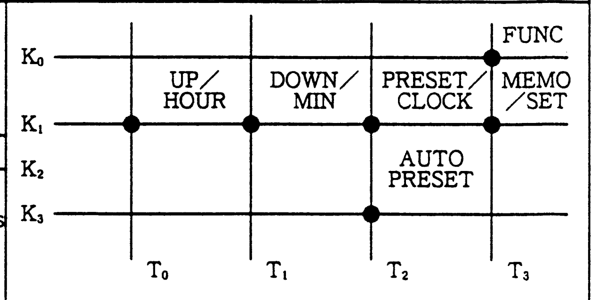

B TUNER C.B
L201 FM VT ADJ.
RF AMP
LOCAL OSC
BUFFER AMP
REG
BIAS
MIX
IC201 TA8158F FM FRONT END
L203 FM TRACKING ADJ.
TP1 (VT)
CF201 BPF GFMB1
Q202 2SA1362GR (AEG) +B SW
L204 AM IF ADJ.
Q203 2SC4215O (OO) IF AMP
CF202 CF203 CF205
L205, CT201 AM TRACKING ADJ.
Q206 2SK882Y (TY)
Q207 2SC4215O (OO) AM RF AMP
Q208 RN4610 (VK)
MONO SW Q204 RN4607 (VH)
Q205 RN4610 (VK) AM SW
AM MIX
FM DET
ECL
AM/FM MONO SW
VCO
DECODE
AM DET
AGC
LEVEL SW
SW
TUN LED
ST LED
HYS
SSC
OSC
IC202 TA8132AF FM IF AMP AM MIX OSC FM/AM DET FM MPX
DC-DC CONVERTER IC203 TA8126F
OSCILLATOR
IC204 TD6134F1 PRESCALLER
AMP
1/4/1/8 15.16 DIVIDER
BUF
Q211 2SC4116GR (LG) LPF
Q212 2SC4116GR (LG) LPF
Q215 2SA1586Y (SY) +B SW
IC206 SC7S04F (ES) INVERTER
Q216 RN4610 (VK)
Q218 RN1305 F/R SW
Q217 RN1305 (EX) TAPE/CLOCK SW
STOP IN STOP: 1.5 PLAY: 0
HOLD
AM STEP S202 9KHZ 10KHZ
IC205 TC9308F-030 CONTROLLER
KEY RETURN
KEY IN
CF202, 203 E RANK SHORT OPEN 10.7 SHORT 10.75
C TACT C.B
PRESET CLOCK
UP/HOUR
DOWN/MIN
MEMORY/SET
AUTO PRESET
S205 RADIO ON/OFF·BAND (JX719) POWER ON/OFF·BAND (JX619)
LCD
LCD201 (DISPLAY)
➔ : FM SIGNAL
⇨ : AM SIGNAL
OPE/BATT
S209 MULTI SOUND
S210 BBE
DSL
E TUNER CONNECT FLEX.C.B
ANT
GND
R
L
MONO
TU+B
TU OUT
VCC
C-GND
AMP+B
BBE SW
BBE
POP
ROCK
FLAT (DSL)
F/R
STOP IN
MUTE
REG+B
(JX719 ONLY)
TO A MAIN C.B
TV FM AM PM
FWD
REV
CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8
+5

| NO | COM.1 | COM.2 |
|---|---|---|
| 1 | COM1 | - |
| 2 | CH2 | CH1 |
| 3 | AM | PM |
| 4 | FM | V |
| 5 | CH3 | H |
| 6 | 2d | 2e |
| 7 | 2g | 2f |
| 8 | 2b | 2a |
| 9 | 2c | COL |
| 10 | 3d | 3e |
| 11 | 3g | 3f |
| 12 | 3b | 3a |
| 13 | 3c | P |
| 14 | 4d | 4e |
| 15 | 4g | 4f |
| 16 | 4b | 4a |
| 17 | 4c | 5 |
| 18 | CH4 | CH5 |
| 19 | CH7 | CH8 |
| 20 | CH6 | TV |
| 21 | - | COM.2 |

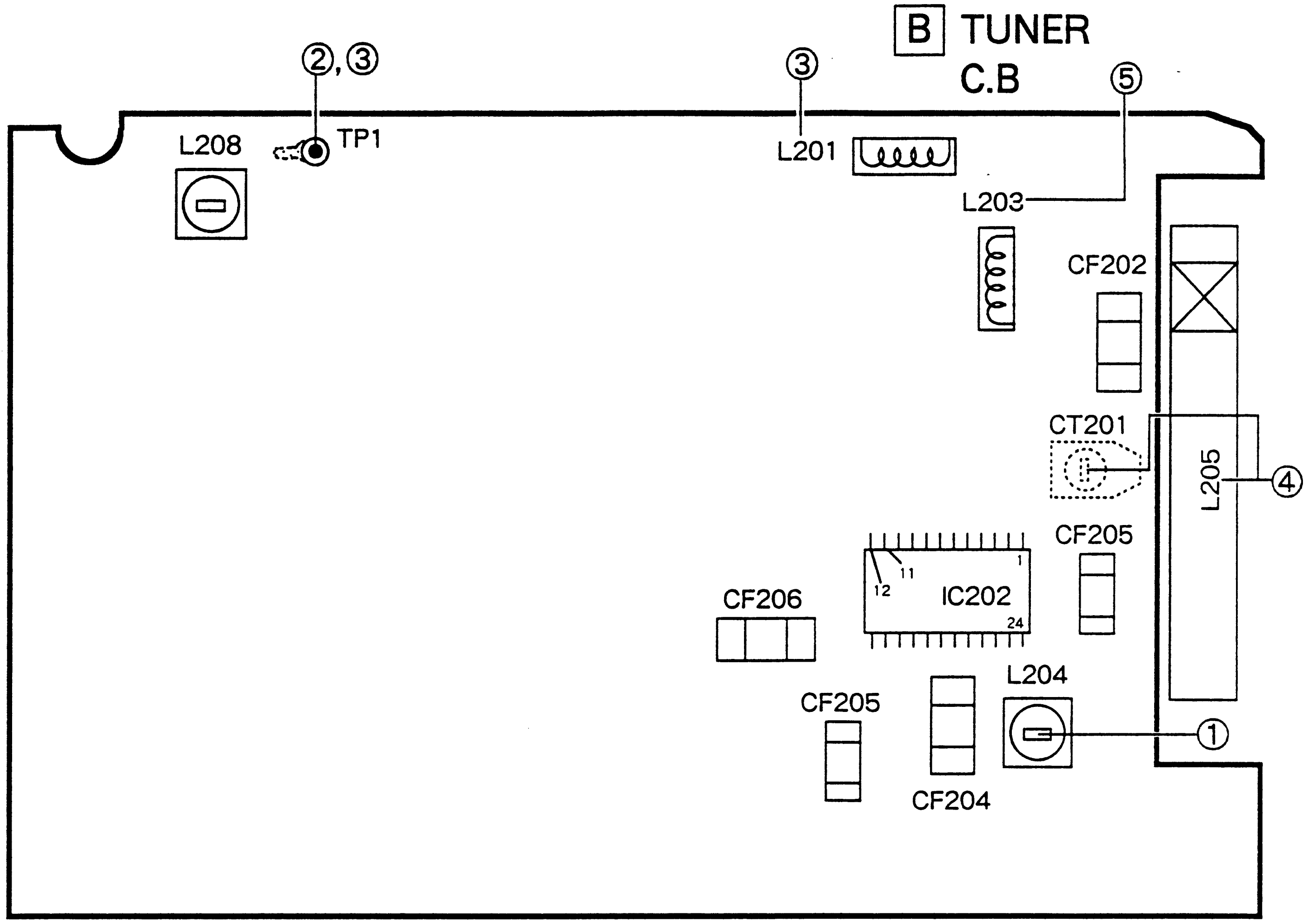

B TUNER C.B
B TUNER C.B
C TACT C.B
C TACT C.B
S209
MULTI SOUND
FLAT
POP
ROCK
JAZZ
(JX719)
DSL
OFF
ON
(JX619)
S210
BBE
1
2
3
(JX719 ONLY)
D204
OPE/BATT
LCD201 (DISPLAY)
S204
PRESET CLOCK
S205
RADIO ON/OFF
BAND
(JX719)
POWER ON/OFF
BAND
(JX619)
S202
AM STEP
9KHz ↔ 10KHz
R : RESET
BT201
TP1(VT)
S203
AUTO PRESET
S208
MEMORY/SET
S207
DOWN/MIN
S206
UP/HOUR
L205 BAR ANT
RED
BLU
CF202 CF203 A E
CF205 RED WHT
E TUNER CONNECT FLEX. C.B
To A MAIN C.B
E (SHORT)
CF202,203 E RANK
S201
HOLD
OFF ↔ ON

## IC DESCRIPTION

### IC,TC9308 – 030

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 58 | COM1 | O | Common output. LCD drive outputs. |
| 19 | COM2 | O | Common output. |
| 59, 60<br>1~17 | S1~19 | O | Segment outputs. |
| 20 | $K_0$ | I | Key return signal inputs for the key matrix. (Except for K2)   $K_0$<br>$K_1$<br>$K_2$<br>$K_3$<br>FUNC<br>UP/ HOUR<br>DOWN/ MIN<br>PRESET/ CLOCK<br>MEMO /SET<br>AUTO PRESET<br>$T_0$<br>$T_1$<br>$T_2$<br>$T_3$ |
| 21 | $K_1$ | I | |
| 22 | $K_2$ | I | |
| 24 | $K_3$ | I | |
| 23 | NC | – | Unused. |
| 25 | $T_0$ | O | Key return signal outputs for the key matrix. |
| 26 | $T_1$ | O | |
| 27 | $T_2$ | O | |
| 28 | $T_3$ | O | |
| 29, 30 | $I_{00}$, $I_{01}$ | I | $I_{00}$ / $I_{01}$ / Mode<br>H / H / 10kHz AM<br>H / L / 9kHz<br>L / H / FM1<br>L / L / FM2<br>Band switching input pins. |
| 31 | AREA | I | Inputs to switch the tuner specifications. |
| 32 | TV OUT | I | |
| 33 | ALARM IN | I | Alarm input. While this input is "H", a buzzer sound is output. The input is inhibit in the tuner mode. |
| 34 | REMOTE OFF | I | "H" input causes only the PRESET function to turn off.<br>"L" input causes only the PRESET function to turn on. |
| 35 | STOP IN | I | Clock display at "H". TAPE is displayed at "L".<br>The frequency is displayed in the radio mode. |
| 36 | F/R IN | I | Goes "HIGH" when the tape runs forward and "LOW" when it runs is reverse. |
| 37 | BUZ OUT | O | Buzzer output. |
| 38 | MUTE OUT | O | Muting output. "HIGH" level mutes a signal. |
| 39 | TU – H | O | Output "H" in the TUNER function mode. |
| 40 | FM OUT | – | Unused. |
| 41 | IF IN | I | Auto stop input. A signal is input in the MUTE ON mode. |
| 42 | $D_{01}$ | O | Error output of phase detector. Applies a pulse to the LPF. |
| 43 | $D_{02}$ | – | Unused. |
| 44 | AM OSC IN | I | AM OSC input. |
| 45 | PSC | O | PSC output. |
| 46 | FM IN | I | Receives the prescaler output. |
| 47 | GND | – | Ground pin. |
| 48 | $\overline{\text{INH}}$ | I | TUNER "H" is input to activate the PLL. TAPE "L" is input to stop the PLL. |
| 49 | TEST | – | Unused. |
| 50, 51 | $\overline{\text{XT}}$, XT | I | A crystal oscillator is connected to these pins. |
| 52 | RESET | I | Reset input. Reset at "L". |
| 53 | VDD | – | Connected to a power supply. |
| 54 | VLCD | – | LCD boosting power supply. |
| 55~57 | C1~C3 | – | Capacitors are connected to these pins for an LCD boosting power supply. |
| 18 | S20 | – | Unused. |

## ADJUSTMENT



〈RADIO SECTION〉

1. AM IF Adjustment
   L204 ······································· 450kHz

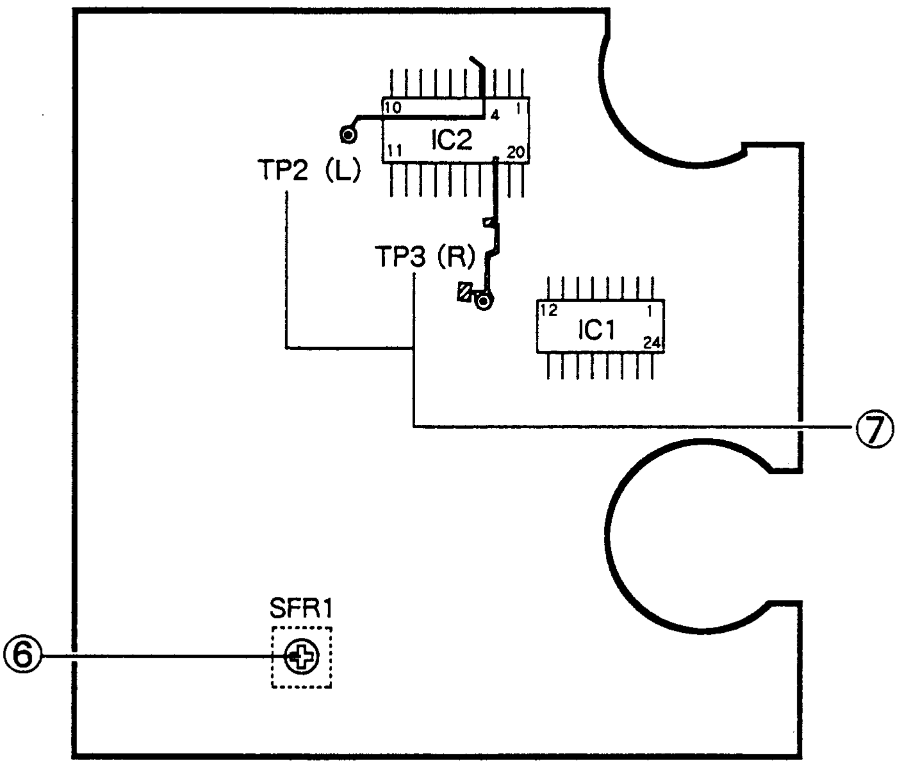
2. AM VT Check
   Settings : Test point • TP1
   Method : Set to AM531kHz and TP1,check the voltage for more than 0.65V.
   • 7.0~8.0V AM 1,602kHz

3. FM VT Adjustment
   Settings : Test point • TP1
   : Adjustment location • L201
   Method : Set to FM 87.5MHz and adjust L201 so that the test point becames 1.0~1.2V.
   • 6.0~8.0V at FM 108MHz.

4. AM Tracking Adjustment
   L205 ······································· 630kHz
   CT201 ······································· 1440kHz

5. FM Tracking Adjustment
   L203 ······································· 87.5MHz

## A MAIN C.B



〈TAPE RECORDER SECTION〉

6. Tape Speed Adjustment.

Settings: Test tape • TTA − 100 (TTA − 111S)
: Test point • PHONES JACK
: Adjustment location • SFR1

Method : Play back the test tape, adjust for 3000Hz at FWD and ± 45Hz at REV.

7. Dolby Level Check

Settings: Test tape • TTA − 200 (TTA − 161S,TCC − 130)
: Test point • TP2 (Lch), TP3 (Rch)
: DOLBY SW • OFF
: PAUSE SW • OFF
: BBE SW • OFF (JX719)
: MULTI SOUND PROCESSOR SW • OFF (JX719)
: DSL SW • OFF (JX619)

Method : Connect an electrolytic capacitor (10 μ F/ 16V) to measured equipment and TP2 (3), check the voltage for 100mV ± 1dB.

8. Azimuth Adjustment.

This model is no azimuth adjustment.

## PRACTICAL SERVICE FIGURE

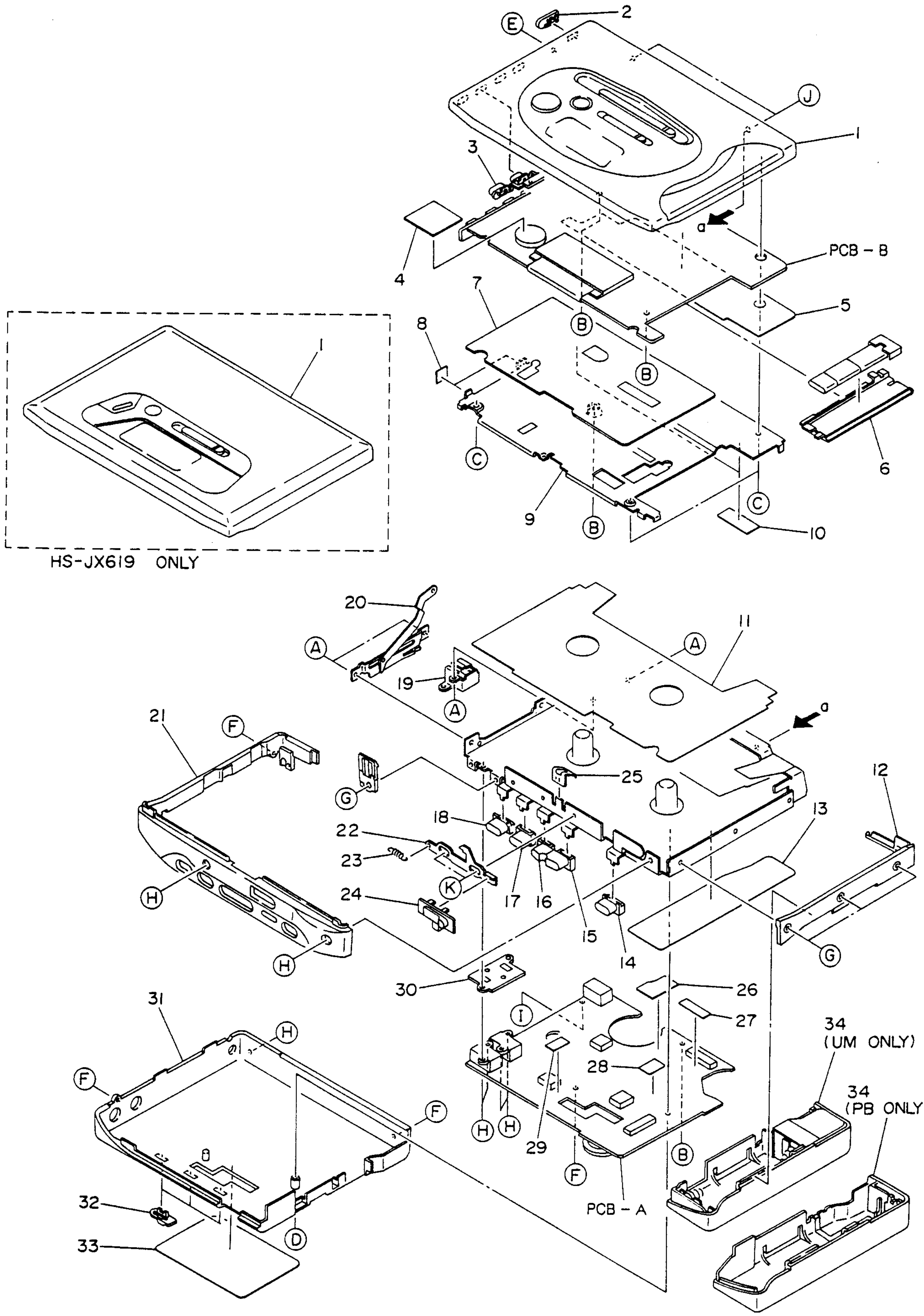
〈RADIO SECTION〉

| | |
|---|---|
| Sensitivity : | |
| (IHF THD 3%) | FM Less than 19dB (90MHz) |
| (S/N 10dB) | AM Less than 54dB (999kHz) |
| Intermediate frequency : | FM 10.7MHz<br>AM 450kHz |
| FM stereo separation : | More than 17dB (1kHz) |

〈TAPE RECORDER SECTION 〉

| | |
|---|---|
| Wow & flutter : | More than 0.47% (RMS) |
| Take − up torque | 22~34g − cm (FWD, REV) |
| F.F torque : | 70~150g − cm |
| REW torque : | 70~150g − cm |
| S/N ratio : | More than 47dB (PB)<br>More than 35dB (REC) |
| Distortion : | Less than 3% (PB)<br>Less than 10% (REC) |
| Erasing ratio : | More than 48dB (1kHz) |
| Noise level : | Less than 3mV (VOL MAX DC) |
| Bias frequency : | 50kHz |
| Frequency response : | 63Hz~8kHz ± 3.5dB (NORMAL)<br>63Hz~10kHz ± 4.5dB (CrO2, METAL) |

# MECHANICAL EXPLODED VIEW 1/1



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PCB - B
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HS-JX619 ONLY
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(PB ONLY)
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PCB - A
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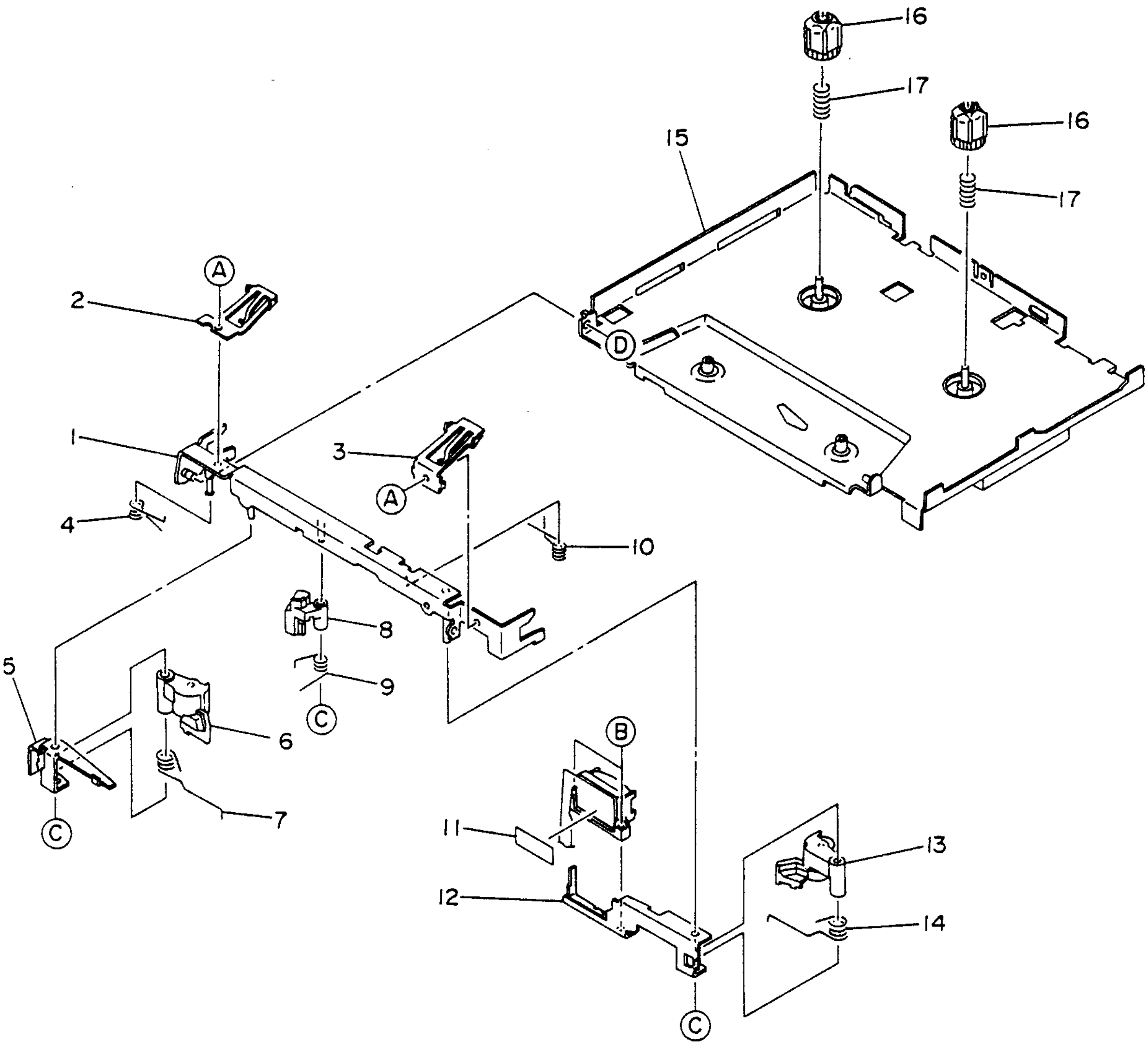
# MECHANICAL PARTS LIST 1／1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 09-028-075-010 | LID, CASS ASSY(JX619) |
| 1 | 09-028-057-010 | LID, CASS ASSY(JX719) |
| 2 | 82-HJ4-017-010 | KNOB, SLIDE H |
| 3 | 82-HJ4-014-010 | KEY, SET |
| 4 | 82-HJ4-225-010 | SH, B-BATT |
| 5 | 82-HJ4-218-110 | SH, FLEX |
| 6 | 82-HJ4-204-010 | HLDR, ANT |
| 7 | 82-HJ4-217-010 | SH, PWB |
| 8 | 80-HJ3-618-010 | SH, BAT |
| 9 | 82-HJ4-201-110 | HLDR, CASS |
| 10 | 81-HJ4-236-010 | SH 15-7 |
| 11 | 82-ZM2-325-210 | SH CHAS |
| 12 | 82-HJ4-005-010 | FRAME, BOTTOM |
| 13 | 82-HJ4-223-010 | SH, CHAS-INS |
| 14 | 82-HJ4-013-110 | P-BUTTON, REC |
| 15 | 82-HJ4-012-010 | P-BUTTON, REW |
| 16 | 82-HJ4-011-010 | P-BUTTON, FF |
| 17 | 82-HJ4-010-010 | P-BUTTON, STOP |
| 18 | 82-HJ4-009-010 | P-BUTTON, PLAY |
| 19 | 82-HJ4-207-010 | HLDR, JACK D |
| 20 | 82-HJ4-221-010 | HLDR, ASSY |
| 21 | 82-HJ4-004-010 | FRAME, CENTER |
| 22 | 82-HJ4-205-010 | PLATE, LOCK |
| 23 | 82-HJ4-222-110 | SPR-E, LOCK |
| 24 | 82-HJ4-020-110 | KNOB, OPEN |
| 25 | 82-HJ4-234-010 | SPR-P, C-PUSH-N |
| 26 | 82-HJ4-227-110 | SH, M-PWB A |
| 27 | 82-HJ4-229-110 | SH, M-PWB C |
| 28 | 81-HK3-226-010 | SH 5-8-0.1 |
| 29 | 82-HJ4-228-010 | SH, M-PWB B |
| 30 | 82-HJ4-208-010 | PLATE, JACK |
| 31 | 82-HJ4-003-210 | CAB, REAR(BLK) |
| 32 | 82-HJ4-016-010 | KNOB, SLIDE R |
| 33 | 82-HJ9-006-010 | PLATE, REAR(JX619) |
| 33 | 82-HJ4-023-110 | PLATE, REAR(JX719) |
| 34 | 09-028-074-010 | BATT BOX ASSY UM |
| 34 | 09-028-076-010 | BATT BOX ASSY PB |
|  | 09-028-048-010 | APPE SCREW KIT |
| A | 87-263-500-010 | V+1.4-1.4 |
| B | 87-067-385-010 | VT 1.4-2.5 HL |
| C | 87-067-384-010 | VT 1.4-3.5 HL |
| D | 87-067-430-010 | VT 1.4-5 HL |
| E | 87-067-628-010 | S-SCREW+1.4-1 [B] |
| F | 87-067-320-010 | S-SCREW+1.4-1.8 [B] |
| G | 87-067-359-010 | S-SCREW+1.4-2.5 [B] |
| H | 87-067-360-010 | S-SCREW+1.4-3.5 [B] |
| I | 87-067-746-010 | SCREW SERRATE M1.4-2 (H0.5) |
| J | 87-067-738-010 | HINGE SCRW 1.4-1 [B] N |
| K | 87-067-986-010 | S-HINGE 1.4-1 [B] NL |

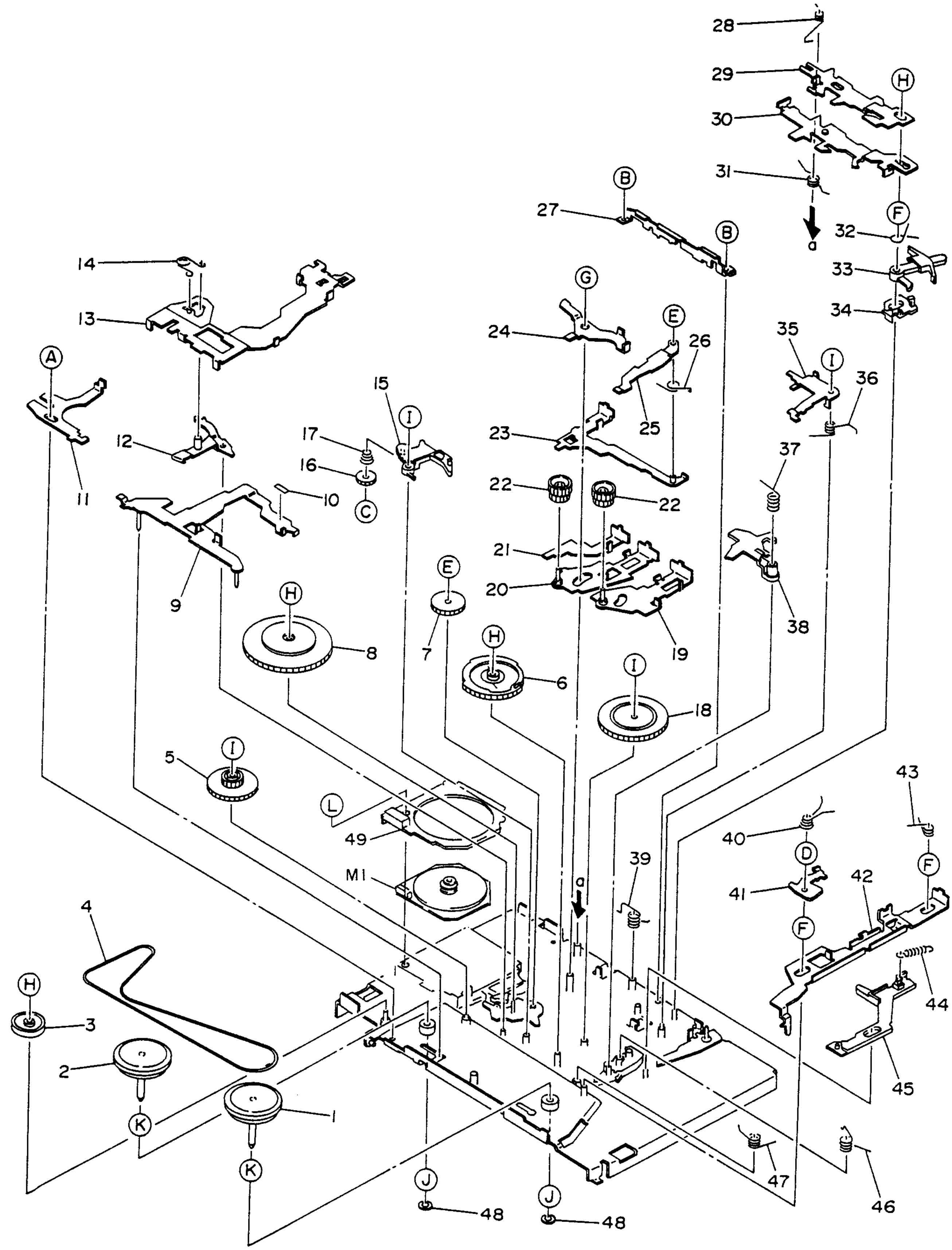
## MECHANISM EXPLODED VIEW 1/2



## MECHANISM PARTS LIST 1/2

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 82-ZM2-224-010 | HLDR ASSY, HEAD J |
| 2 | 82-ZM2-233-110 | SPR-P, HLD L |
| 3 | 82-ZM2-234-110 | SPR-P, HLD R |
| 4 | 82-ZM2-306-010 | SPR-T, EH BACK |
| 5 | 82-ZM2-271-010 | LVR, EH LOCK |
| 6 | 82-ZM2-227-110 | ARM ASSY, PINCH L |
| 7 | 82-ZM2-317-010 | SPR-T, PINCH LJ |
| 8 | 82-ZM2-260-010 | ARM ASSY, EH |
| 9 | 82-ZM2-305-010 | SPR-T, EH |
| 10 | 82-ZM2-304-010 | SPR-T, ARM HEAD |
| 11 | 80-ZM4-330-010 | SH, 4.5-12 |
| 12 | 82-ZM2-232-010 | ARM, HEAD |
| 13 | 82-ZM2-230-110 | ARM ASSY, PINCH R |
| 14 | 82-ZM2-318-010 | SPR-T, PINCH RJ |
| 15 | M8-2ZS-290-000 | ABL-10 |
| 16 | 82-ZM2-278-010 | GEAR, REEL |
| 17 | 82-ZM2-307-010 | SPR-C, REEL |
| A | 87-263-503-310 | V+1.4-2.0 CR |
| B | 87-067-954-010 | S-SCREW V+1.4-3.7 |
| C | 87-067-569-010 | PW 0.83-2.5-0.25 CUT |
| D | 87-078-011-010 | PW 1.3-3.1-0.4 C-60 |

# MECHANISM EXPLODED VIEW 2/2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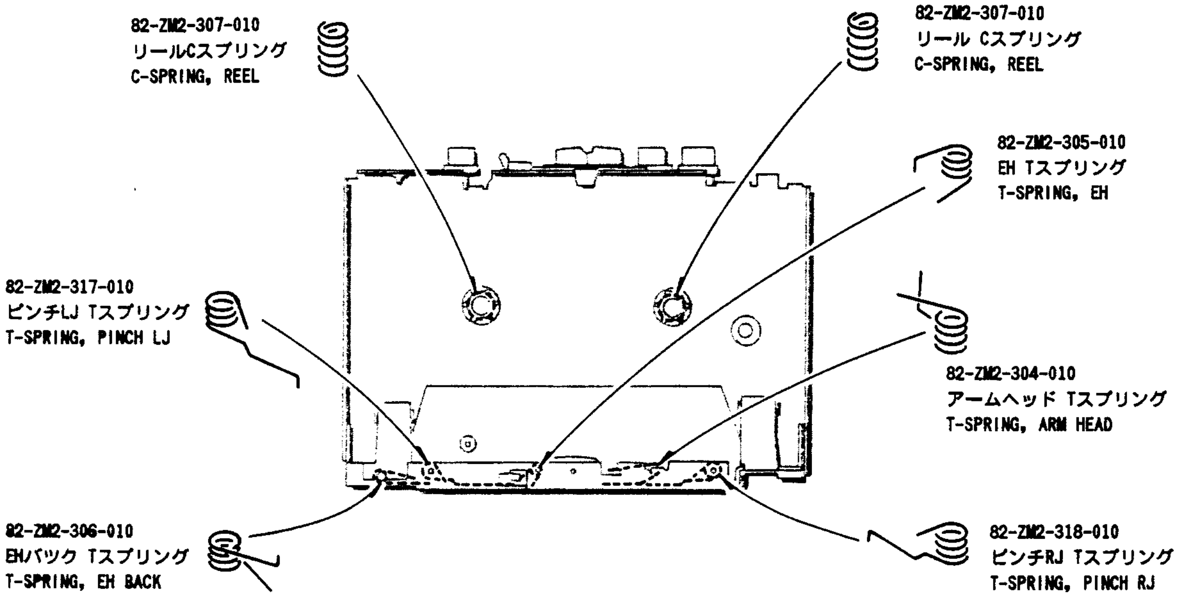
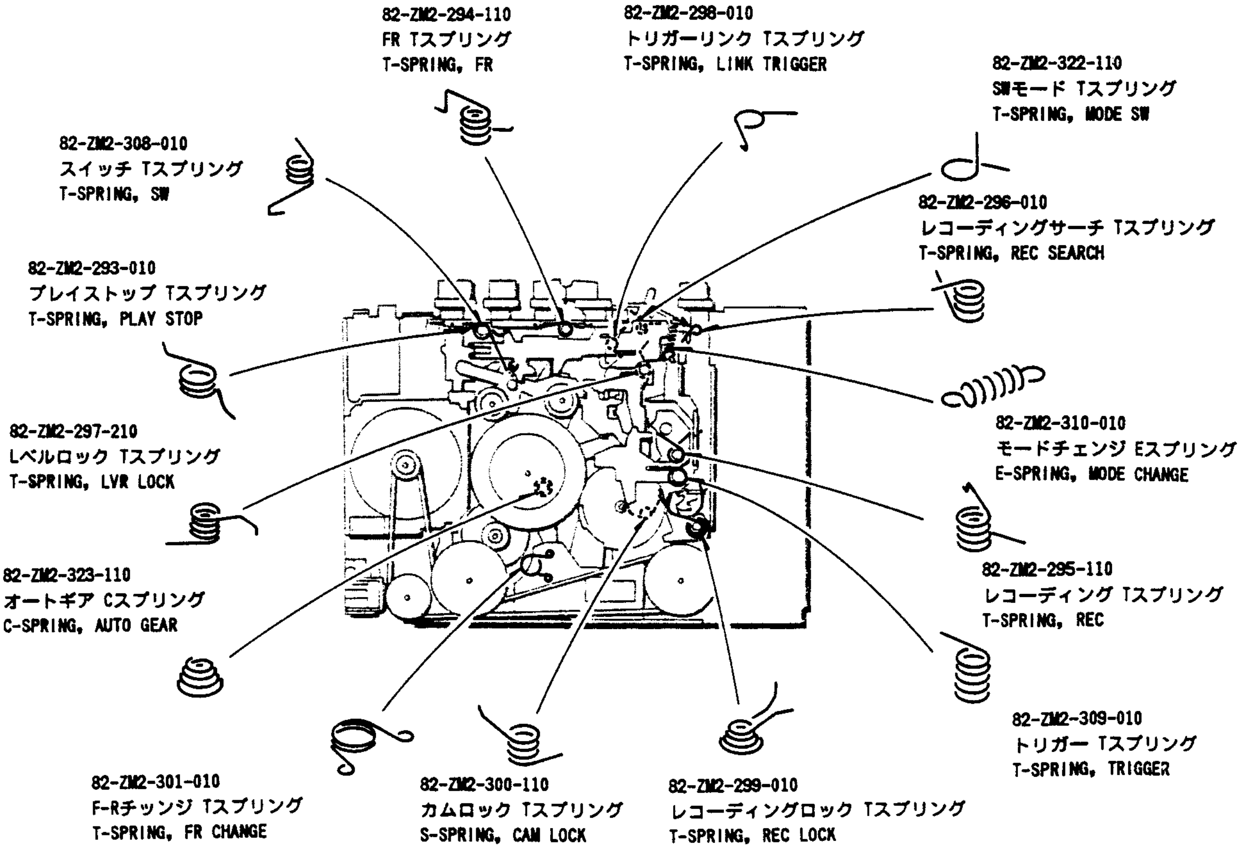
# MECHANISM PARTS LIST 2/2

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 82-ZM2-215-210 | FLY-WHL ASSY,L |
| 2 | 82-ZM2-211-210 | FLY-WHL ASSY,R |
| 3 | 82-ZM2-315-010 | PULLEY,IDLE |
| 4 | 82-ZM2-292-010 | BELT,SQ 0.65-194.7 |
| 5 | 82-ZM2-281-010 | GEAR,LINK A |
| 6 | 82-ZM2-285-110 | GEAR,CAM |
| 7 | 82-ZM2-284-010 | GEAR,PLAY |
| 8 | 82-ZM2-286-010 | SLIP ASSY |
| 9 | 82-ZM2-243-010 | LVR ASSY,CAM |
| 10 | 82-ZM2-327-010 | SH 2-7.7-0.14 |
| 11 | 82-ZM2-256-110 | LVR,FR MODE |
| 12 | 82-ZM2-250-010 | ARM ASSY,PLAY GR |
| 13 | 82-ZM2-255-010 | LVR ASSY,HEAD UP |
| 14 | 82-ZM2-301-010 | SPR-T,FR CHANGE |
| 15 | 82-ZM2-272-010 | ARM,AUTO |
| 16 | 82-ZM2-273-110 | GEAR,AUTO |
| 17 | 82-ZM2-323-110 | SPR-C,AUTO GEAR |
| 18 | 82-ZM2-282-010 | GEAR,LINK B |
| 19 | 82-ZM2-238-210 | LVR ASSY,REW |
| 20 | 82-ZM2-235-010 | LVR ASSY,FF |
| 21 | 82-ZM2-261-010 | LVR,STOP |
| 22 | 82-ZM2-283-010 | GEAR,FR |
| 23 | 82-ZM2-240-010 | LVR ASSY,PLAY |
| 24 | 82-ZM2-262-310 | LINK,HEAD UP |
| 25 | 82-ZM2-267-010 | ARM,DIR |
| 26 | 82-ZM2-298-010 | SPR-T,LINK TRIGGER |
| 27 | 82-ZM2-312-010 | HLDR,LVR |
| 28 | 82-ZM2-308-010 | SPR-T,SW |
| 29 | 82-ZM2-264-310 | LVR,PLAY SW |
| 30 | 82-ZM2-265-010 | LVR,LOCK |
| 31 | 82-ZM2-293-010 | SPR-T,PLAY STOP |
| 32 | 82-ZM2-322-110 | SPR-T,MODE SW |
| 33 | 82-ZM2-277-010 | ARM,MODE SW |
| 34 | 82-ZM2-274-010 | LINK,MODE SW |
| 35 | 82-ZM2-266-110 | LINK,TRIGGER LOCK |
| 36 | 82-ZM2-297-210 | SPR-T,LVR LOCK |
| 37 | 82-ZM2-309-010 | SPR-T,TRIGGER |
| 38 | 82-ZM2-275-110 | ARM,TRIGGER |
| 39 | 82-ZM2-294-110 | SPR-T,FR |
| 40 | 82-ZM2-299-010 | SPR-T,REC LOCK |
| 41 | 82-ZM2-268-010 | ARM,REC LOCK |
| 42 | 82-ZM2-254-110 | LVR,REC |
| 43 | 82-ZM2-296-010 | SPR-T,REC SEARCH |
| 44 | 82-ZM2-310-010 | SPR-E,MODE CHANGE |
| 45 | 82-ZM2-276-110 | LVR,MODE CHANGE |
| 46 | 82-ZM2-295-110 | SPR-T,REC |
| 47 | 82-ZM2-300-110 | SPR-T,CAM LOCK |
| 48 | 86-550-455-010 | SH,0.87-2.25-0.25CUT |
| 49 | 82-ZS2-604-110 | HOLD FP |
| A | 87-ZM2-314-010 | S-SCREW V+1.4-1 |
| B | 87-067-300-110 | V+1.4-1.1 |
| C | 87-067-998-010 | PW 0.8-2.5-0.2 SLT |
| D | 87-067-951-010 | PW 1.15-3-0.25 C |
| E | 87-067-548-010 | PW 1.2-3-0.25 SLT |
| F | 87-067-729-010 | PW 1.3-4-0.25 C-CUT |
| G | 87-067-952-010 | PW 1.8-3.2-0.25 C |
| H | 87-067-639-010 | PW 3-0.8-0.25 SLT |
| I | 87-067-860-010 | PW 3-0.95-0.4 |
| J | 87-067-971-010 | RW 1.28-2.3-0.25 |
| K | 87-067-370-010 | RW 1.28-3-0.25 |
| L | --- | SCREW |

# SPRING APPLICATION POSITION


82-ZM2-307-010
リールCスプリング
C-SPRING, REEL
82-ZM2-307-010
リール Cスプリング
C-SPRING, REEL
82-ZM2-305-010
EH Tスプリング
T-SPRING, EH
82-ZM2-317-010
ピンチLJ Tスプリング
T-SPRING, PINCH LJ
82-ZM2-304-010
アームヘッド Tスプリング
T-SPRING, ARM HEAD
82-ZM2-306-010
EHバック Tスプリング
T-SPRING, EH BACK
82-ZM2-318-010
ピンチRJ Tスプリング
T-SPRING, PINCH RJ


82-ZM2-294-110
FR Tスプリング
T-SPRING, FR
82-ZM2-298-010
トリガーリンク Tスプリング
T-SPRING, LINK TRIGGER
82-ZM2-322-110
SWモード Tスプリング
T-SPRING, MODE SW
82-ZM2-308-010
スイッチ Tスプリング
T-SPRING, SW
82-ZM2-296-010
レコーディングサーチ Tスプリング
T-SPRING, REC SEARCH
82-ZM2-293-010
プレイストップ Tスプリング
T-SPRING, PLAY STOP
82-ZM2-310-010
モードチェンジ Eスプリング
E-SPRING, MODE CHANGE
82-ZM2-297-210
Lベルロック Tスプリング
T-SPRING, LVR LOCK
82-ZM2-295-110
レコーディング Tスプリング
T-SPRING, REC
82-ZM2-323-110
オートギア Cスプリング
C-SPRING, AUTO GEAR
82-ZM2-309-010
トリガー Tスプリング
T-SPRING, TRIGGER
82-ZM2-301-010
F-Rチッンジ Tスプリング
T-SPRING, FR CHANGE
82-ZM2-300-110
カムロック Tスプリング
S-SPRING, CAM LOCK
82-ZM2-299-010
レコーディングロック Tスプリング
T-SPRING, REC LOCK

# REFERENCE NAME LIST

## ELECTRICAL SECTION

| DESCRIPTION | REFERENCE NAME |
|---|---|
| ANT | ANTENNAS |
| C- | CHIP |
| C-CAP | CAP, CHIP |
| C-CAP TN | CAP, CHIP TANTALUM |
| C-COIL | COIL, CHIP |
| C-DI | DIODE, CHIP |
| C-DIODE | DIODE, CHIP |
| C-FET | FET, CHIP |
| C-FOTR | FILTER, CHIP |
| C-JACK | JACK, CHIP |
| C-LED | LED, CHIP |
| C-RES | RES, CHIP |
| C-SFR | SFR, CHIP |
| C-SLIDE SW | SLIDE SWITCH, CHIP |
| C-SW | SWITCH, CHIP |
| C-TR | TRANSISTOR, CHIP |
| C-VR | VOLUME, CHIP |
| C-ZENER | ZENER, CHIP |
| CAP, CER | CAP, CERA-SOL |
| CAP, E | CAP, ELECT |
| CAP, M/F | CAP, FILM |
| CAP, TC | CAP, CERA-SOL |
| CAP, TC-U | CAP, CERA-SOL SS |
| CAP, TN | CAP, TANTALUM |
| CERA FIL | FILTER, CERAMIC |
| CF | FILTER, CERAMIC |
| DL | DELAY LINE |
| E/CAP | CAP, ELECT |
| FLTR | FILTER |
| FUSE RES | RES, FUSE |
| MOT | MOTOR |
| P-DIODE | PHOTO DIODE |
| P-SNSR | PHOTO SENSER |
| P-TR | PHOTO TRANSISTOR |
| POLY VARI | VARIABLE CAPACITOR |
| PPCAP | CAP, PP |
| PT | POWER TRANSFORMER |
| PTR, RES | PTR, MELF |
| RC | REMOTE CONTROLLER |
| RES NF | RES, NON-FLAMMABLE |
| RESO | RESONATOR |
| SHLD | SHIELD |
| SOL | SOLENOID |
| SPKR | SPEAKER |
| SW, LVR | SWITCH, LEVER |
| SW, RTRY | SWITCH, ROTARY |
| SW, SL | SWITCH, SLIDE |
| THMS | THERMISTOR |
| TR | TRANSISTOR |
| TRIMMER | CAP, TRIMMER |
| TUN-CAP | VARIABLE CAPACITOR |
| VIB, CER | RESONATOR, CERAMIC |
| VIB, XTAL | RESONATOR, CRYSTAL |
| VR | VOLUME |
| ZENER | DIODE, ZENER |
| ｻｰｼﾞｻﾌﾟﾚｯｻ | SERGESUPPRESSOR |
| ｾﾗｺﾝ | CAP, CERA |

## MECHANICAL SECTION

| DESCRIPTION | REFERENCE NAME |
|---|---|
| ADHESHIVE | SHEET ADHESHIVE |
| AZ | AZIMUTH |
| BAR-ANT | BAR-ANTENNA |
| BAT | BATTERY |
| BAT, CONTACT ASSY | BATTERY CONTACT ASSY |
| BATT | BATTERY |
| BRG | BEARING |
| BTN | BUTTON |
| CAB | CABINET |
| CASS | CASSETTE |
| CHAS | CHASSIS |
| CLR | COLLAR |
| CONT | CONTROL |
| CRSR | CURSOR |
| CU | CUSHION |
| CUSH | CUSHION |
| DIR | DIRECTION |
| DUBB | DUBBING |
| FLY-WHL | FLYWHEEL |
| FR | FRONT |
| FUN | FUNCTION |
| G-CU | G-CUSHION |
| HDL | HANDOL |
| HIMERON | CLOTH |
| HINGE, BAT | HINGE, BATTERY |
| HLDR | HOLDER |
| HT-SINK | HEAT SINK |
| IB | INSTRUCTION BOOKLET |
| IDLE | IDLER |
| IND, L-R | INDICATOR, L-R |
| KEY, CONT | KEY, CONTROL |
| KEY, PRGM | KEY, PROGRAM |
| KNOB, SL | KNOB, SLIDE |
| KNOB, VOL REV | KNOB, VOLUME REV |
| LBL | LABEL |
| LID, BATT | LID, BATTERY |
| LID, CASS | LID, CASSETTE |
| LVR | LEVER |
| P-SP | P-SPRING |
| PANEL, CONT | PANEL, CONTORL |
| PANEL, FR | PANEL, FRONT |
| PRGM | PROGRAM |
| PULLY, LOAD MO | PULLY, LOADING MOTOR |
| RBN | RIBBON |
| S- | SPECIAL |
| SEG | SEGMENT |
| SH | SHEET |
| SHLD-SH | SHIELD-SHEET |
| SL | SLIDE |
| SP | SPRING |
| SP-SCREW | SPECIAL-SCREW |
| SPACER, BAT | SPACER, BATTERY |
| SPR | SPRING |
| SPR-P | P-SPRING |
| SPR-PC-PUSH | P-SPRING, C-PUSH |
| SW | SWITCH |
| T-SP | T-SPRING |
| TERM | TERMINAL |
| TRIG | TRIGGER |
| TUN | TUNING |
| VOL, | VOLUME |
| W | WASHER |
| WHL | WHEEL |
| WORM-WHL | WORM-WHEEL |
| ｼﾞｸｱｰﾑ | ARM, SHAFT |
| ｼﾞｸｶﾞｲﾄﾞ | GUIDE, SHAFT |
| ｽﾄﾗｯﾌﾟ | STRAP |
| ﾋﾝｼﾞ | HINGE |